

DISSERTATION FROM THE
NORWEGIAN SCHOOL OF
SPORT SCIENCES
2019

Heidi Marian Haraldsen

**Thriving, Striving, or Just Surviving?
A Study of Motivational Processes among
Elite Junior Performers from Sports and
Performing Arts**

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ISBN 978-82-502-0574-1

Acknowledgements

This PhD project was developed in cooperation between the Norwegian School of Sport Sciences Department of Coaching and Psychology and the Oslo National Academy of the Arts Department of Dance. Having the opportunity to do a PhD is a privilege, and I am truly grateful to both institutions, represented by the past leaders Suzanne Bjørneboe and Pierre-Nicolas Lemyre, for their willingness to financially support this research and believe in me. Spending the last four years working on an intriguing research project has been quite an expedition! It has been a journey filled with learning and development, new and fruitful professional collaboration and connections, inspiring friendships, and—of course—many challenges and late hours.

First, I would like to thank my supervisors, Hallgeir Halvari and Frank Abrahamsen. You have been supportive and positive, bringing in expertise and experience, as well as enthusiasm and humor, along the way—Frank on a daily basis, with an office just opposite the hall, and Hallgeir through regular visits and over email. We have had many reflective and revealing conversations, and I have learned so much. I am grateful that you have followed my project closely all the way, being informed and available, but at the same time giving me space to be creative, ponder on my own, and function autonomously. Hallgeir, I especially thank you for twice per year inviting me to the international SDT network that you established with Ed Deci and colleagues. I have been so lucky to join in with top scholars on workshops, conferences, and social events.

I would also like to offer thanks to my co-authors and collaborators. First to Bård Erlend Solstad, who has followed my project closely and contributed greatly to my professional accomplishments. You are always positive and optimistic, you believe in me, and you have really been supportive of my need for competence and relatedness. At the same time, you give clear, honest, and constructive feedback, bringing my thinking and writing forward. Thank you for our friendship and conversations as well! I look forward to our future collaborations and research projects. Sanna Nordin-Bates, I would like to thank you for important academic contributions; personal support and kindness; and detailed, constructive feedback. I am especially grateful for the way you introduced me to the field of dance research and other dance researchers. It is lovely to share the same enthusiasm and love for the field of dance. I hope we will continue our collaborations in the dance research group. Lastly, I am grateful to Andreas Ivarsson for methodological contributions and statistical guidance, and for your positive mood and social contributions when you visit Norway.

I would also like to thank the athletes, dancers, and musicians who participated in the project, as well as their leaders and coaches/teachers in the sport federations, talent development schools such as NTG, Barrat Due Unge Talenter, and the classical ballet department at KHiO,

who helped organize the data collection. Without your contributions, this project would have never been possible. Åke Fiskerstrand and Arthur Koot at Olympiatoppen, thank you for opening the doors to the sports contexts and giving important information on how Norwegian talent development within the field of sports is organized.

I would like to thank all my colleagues from the department of dance at Oslo National Academy of the Arts for your support and interest in my project. It feels like coming home when I enter the doors at KHiO. Thanks to my dear colleague and friend Veslemøy, who always believes in me, supports me, and gives me advice professionally and personally. I look forward to returning to the teacher education program and working with familiar tasks, as well as starting on new projects.

My time at the Department of Coaching and Psychology at the Norwegian School of Sport Sciences has been wonderful, due to the professional and social environments that exist within this department and on the third floor. My fellow PhD candidates during these years, past and current: I have had so much fun and learned so much from you, and I have enjoyed talking to you all on different occasions. Special thanks to Siv, Cathrine, Gro, Terese, and Tynke, for girl power and for many good conversations along the way. In addition, thanks to Kristin, who is the “real” head of the department, for always taking care of all our needs, making sure we thrived, and having total control of everything. Lene, even though you are in another department, your mood, dance spirit, and presence have made my days brighter.

To my family, in-laws, and friends, you contribute to making my life enjoyable and meaningful. Anette and Ina, I appreciate all your effort and contributions to the dance school Danseverket, for sharing the same ideals and dreams, for letting me join in whenever I like at your yoga and dance classes, and for our friendship. Maria, Beate, and Ingvild, our friendship and conversations on all things in life are of great value to me. My amazing children, Aksel and Ella: I am so proud of you and all your fine qualities. You have been so patient, supportive, and understanding during these years, and I look forward to spending more time with you. My dear Espen, I could not have managed a day without you; you are my safe haven. I love our life together, all we are and do as a family, our values and priorities. You help me keep my feet on the ground, and at the same time, you lift me to new heights.

Oslo, August 2019,
Heidi Marian Haraldsen

List of Papers

Paper I

Haraldsen, H. M., Nordin-Bates, S. M., Abrahamsen, F. E., & Halvari, H. (Accepted). Thriving, striving, or just surviving? Learning conditions, motivational processes and well-being among Norwegian elite performers in music, ballet, and sport. *Roeper Review*.

Paper II

Haraldsen, H. M., Halvari, H., Solstad, B. E., Abrahamsen, F. E., & Nordin-Bates, S. M. (2019). The role of perfectionism and controlling conditions in Norwegian elite junior performers' motivational processes. *Frontiers in Psychology*, 10, 1366. doi.10.3389/fpsyg.2019.01366

Paper III

Haraldsen, H. M., Solstad, B. E., Ivarsson, A., Halvari, H., & Abrahamsen, F. E. (Resubmitted). An examination of change in basic needs frustration and performance outcomes among elite junior performers. *Scandinavian Journal of Medicine & Science in Sport*.

Paper IV

Haraldsen, H. M., Ivarsson, A., Solstad, B. E., Abrahamsen, F. E., & Halvari, H. (Submitted). Examining the composites of perfectionism and inauthenticity in relation to controlled motivation, performance anxiety and exhaustion among elite junior performers. *European Journal of Sport Sciences*.

Paper V

Haraldsen, H. M., Abrahamsen, F. E., & Halvari, H. (Submitted). Negotiating maladaptive motivational processes – How did elite junior performers from sports and performing arts experience to strive and survive? *Psychology of Sport and Exercise*.

Summary

Background: Reaching the top in sports and performing arts can be striving. For some elite junior performers, though, the perceived requests and stressors seem to be overwhelming, resulting in dropout, unfulfilled potential, and psychological ill-being. This distinct “dark side” of talent development is an understudied phenomenon. Hence, the purpose of this doctoral thesis was to contribute with deeper insight into the complexity of maladaptive motivational processes of elite junior performers from sports and performing. Guided by Self-Determination Theory (SDT; Ryan & Deci, 2017) the present doctoral thesis set out to examine the interplay between personal motivational mentality (who) and contextual conditions (where) in relation to malfunctioning and various debilitating motivational outcomes.

Objectives: The present doctoral thesis was guided by two overall aims. First, we aimed to investigate the relationships between perceived talent development environments (TDEs) and elite junior performers’ maladaptive motivational processes and various performance outcomes. Second, we aimed to investigate personal motivational determinants and their relationships with maladaptive motivational processes and various performance outcomes in elite junior performers.

Research Design: An overall sequential multiphase mixed-methods research design comprised a retrospective exploratory interview study (Paper I), a descriptive cross-sectional study (Paper II), a longitudinal cohort studies (Paper III), a prospective cohort study (Paper IV), and an explanatory interview study (Paper V).

Methods: The targeted population was Norwegian elite junior performers from sports and performing arts. Hence, the participants were purposefully selected for all studies. In the qualitative studies, successful established elite performers ($N = 9$, Paper I) and current elite junior performers facing adversity ($N = 8$, Paper V) were interviewed based on semi-structured interviews. Data were analyzed with a combination of thematic and narrative analysis. The quantitative studies recruited current elite junior performers from sports and the arts ($N = 171$, Paper II; $N = 259$, Paper III; $N = 219$, Paper IV) that filled out standardized questionnaires. Data were analyzed via structural equation modeling (SEM), and we performed conditional process modeling (Paper II), growth mixture modeling (Paper III), and latent profile analysis (Paper IV).

Results and Discussion: Findings (1) indicated that Norwegian talent development environments (TDEs) were exclusive, professionalized, and highly performance-oriented (Papers I and V). They played an important role in elite junior performers’ maladaptive motivational processes (Papers I, II, and V). Even though they provided both autonomy-supportive and controlling conditions, controlling conditions were common across the domains and were mainly of an indirect nature based on conditional regards (Papers I and V). Controlling conditions moderated the indirect

relationship between perfectionistic concerns (PC) and (a) controlled motivation and (b) performance anxiety via competence need frustration (Paper II). Competence turned out to be the core currency in the TDEs, affecting social status and future outlooks for the elite junior performers (Papers I and V).

Findings (2) showed that elite junior performers' motivational mentality (i.e., externally driven forms of perfectionistic concerns and inauthenticity) are vulnerability dispositions increasing the risk of experiencing maladaptive motivational processes and debilitating motivational outcomes (Papers I–V). Moreover, basic needs frustration, and especially competence needs frustration, seemed to play a key role as an explaining mechanism in these maladaptive motivational processes (Papers II and III). Perfectionistic strivings (PS) did not function as a buffer in the maladaptive motivational processes (Papers I, IV, and V). However, autonomous functioning and low levels of inauthenticity seemed to instead play that buffering role (Papers I, IV, and V).

Findings (3) showed that the maladaptive motivational processes were an emergent in situ process of joints effects, where the sum and (mis)match of diverse personal, contextual, and situational motivational factors was like a balancing scale, influencing the elite junior performers' overall experiences of striving, surviving, and thriving (Papers I and V). When negotiating the maladaptive motivational processes, the role of self-determined functioning played a key role in relation to elite junior performers' coping, learning, and developing from adversity (Papers I and V). Conversely, the lack of autonomous functioning nurtured debilitating motivational outcomes of ill-being and decreased perceived performance development (Papers I–V).

Conclusion: In summary, the overall findings from the present thesis highlight the complexity of becoming an elite junior performer. The SDT-based maladaptive motivational processes seemed to be unique, increasing the elite junior performers' likelihood of experiencing malfunctioning, psychological ill-being, and performance setbacks. TDEs should be encouraged to facilitate autonomous functioning, and thus, better safeguard and aid elite junior performers in developing their full potential as both performers and human beings.

Sammendrag

Bakgrunn: Å nå toppen innenfor idrett og utøvende kunst kan være svært krevende og utfordrende. For noen av disse unge eliteutøverne kan summen av utfordringene deres bli overveldende, og det kan føre til en risiko for at de mister motivasjonen og gir opp, at de ikke får utviklet sitt fulle potensial, og de kan oppleve redusert psykisk helse. Dette egenartede forskningsfeltet innenfor talentutvikling som fokuserer på “medaljens bakside” er understudert fenomen som vi har for lite kunnskap om. Derfor har formålet med denne doktorgraden vært å gi dypere innsikt i disse mindre hensiktsmessige motivasjonsprosessene som unge eliteutøvere i idrett og utøvende kunst kan erfare. Gjennom å ta utgangspunkt i selvbestemmelsesteori (SDT; Ryan & Deci, 2017) undersøker denne doktoravhandlingen samspillet mellom personlige motivasjonsegenskaper (hvem) og kontekstuelle betingelser (hvor) i relasjon til ugunstig motivasjonsregulering og ulike ugunstige utfallsvariabler.

Formål: Doktorgradsavhandlingen har hatt to overordnede mål: (1) Å undersøke hvordan det opplevde talentutviklingsmiljøet relaterer til unge eliteutøveres uhensiktsmessige motivasjonsprosesser og negative prestasjonsutfallsvariabler. (2) Å undersøke hvordan personlige motivasjonsegenskaper relaterer til uhensiktsmessige motivasjonsprosesser og ulike prestasjonsutfallsvariabler.

Forskningsdesign: Doktoravhandlingen har overordnet brukt et sekvensielt flerfase design av kombinert forskningsmetoder som består av et retrospektivt eksplorerende intervjustudie (Artikkel I), et beskrivende tverrsnittstudie (Artikkel II), et longitudinelt kohort studie (Artikkel III), et prospektivt kohort studie (Artikkel IV), og et forklarende intervjustudie (Artikkel V).

Metode: Vi rekrutterte formålstjenlig norske eliteutøvere fra individuelle idretter og utøvende kunst til alle delstudiene. I de kvalitative studiene, deltok etablerte og suksessfulle eliteutøvere ($N = 9$, Artikkel I) og unge nåværende eliteutøvere som tidligere hadde rapportert om ugunstig motivasjonsfungering ($N = 8$, Artikkel V). De ble intervjuet basert på semistrukturerte intervjuer og data ble analysert i en kombinasjon av tematisk og narrativ analyse. De kvantitative studiene rekrutterte unge nåværende eliteutøvere fra idrett og utøvende kunst ($N = 171$, Artikkel II, $N = 259$, Artikkel III, $N = 219$, Artikkel IV) som besvarte elektroniske standardiserte spørreskjema. Data ble analysert med bruk av manifest moderert medieringsanalyse (Artikkel II), manifest vekstkurve modellering (Artikkel III) og latent profil analyse.

Resultat: Resultatene (1) viste at norske talentutviklingsmiljøer var eksklusive, profesjonaliserte, og sterkt prestasjonsorienterte (Artikkel I og V). De spilte en viktig rolle i de unge eliteutøvernes ugunstige motivasjonsprosesser (Artikkel I, II og V). Selv om de framstod som både autonomistøttende og kontrollerende på en gang, så var de kontrollerende tendensene

fremtredende, mest av indirekte natur, og relativt vanlige på tvers av domene (Artikkel I og V). Kontrollerende betingelser modererte relasjonen mellom perfektjonistiske bekymringer (PC) og (a) kontrollert motivasjon og (b) prestasjonsangst via frustrasjon av kompetansebehovet (Artikkel II). Kompetanse stod fram som den fremste sosiale kapitalen i disse talentutviklingsmiljøene, og påvirket de unge eliteutøvernes muligheter til sosial status og fremtidige utviklingsmuligheter (Artikkel I og V).

Videre viste resultatene (2) at unge eliteutøveres personlige motivasjonsegenskaper (f.eks. perfektjonisme og inautentisitet) er relatert til psykologisk sårbarhet. Denne sårbarheten øker risikoen for å oppleve ugunstige motivasjonsprosesser og negative prestasjonsutfallsvariabler (Artikkel I-V). I tillegg, frustrasjon av grunnleggende psykologiske behov, og spesielt behovet for kompetanse, indikerte å spille en nøkkelfunksjon som forklarende mekanisme i disse ugunstige motivasjonsprosessene (Artikkel II og III). Perfektjonistiske tilstrebing (PS) fungerte ikke som en buffer i de ugunstige motivasjonsprosessene (Artikkel I, IV og V). Derimot, autonom fungering og lav grad av inautentisitet syntes i stedet å ha en slik beskyttende rolle (Artikkel I, IV og V).

Til sist pekte resultatene (3) på at de ugunstige motivasjonsprosessene var en dynamisk og situert prosess av samtidige og sammenvevde elementer, hvor summen av og vekselvirkningene mellom ulike personlige, kontekstuelle og situasjonelle faktorer balanserte på en knivsegg og påvirket kvaliteten på utøvernes samlende erfaringer i positiv eller negativ retning (Artikkel I og V). Verdien av selvbestemt motivasjonsregulering spilte en nøkkelrolle i forhold til å takle og mestre ugunstige motivasjonsprosesser, og for å klare å utvikle seg i positive retning tross vanskelige erfaringer og motgang (Artikkel I og V). Motsatt viste resultatene at mangel på autonom fungering nærer de ugunstige motivasjonsprosessene, som igjen ser ut til å påvirke de negative prestasjonsutfallsvariablene i ugunstig retning.

Konklusjon: Generelt viser de samlede resultatene fra denne doktorgradsavhandlingen at utøverne opplever unike og sammensatte motivasjonsprosesser der mange faktorer samspiller. Sett i lys av selvbestemmelsesteorien ser det ut til at unge eliteutøvere som opplever ugunstige motivasjonsprosessene har økt risiko for å oppleve frustrasjon av grunnleggende psykologiske behov, som igjen ser ut til å stimulere lavere motivasjonskvalitet, økt grad av psykisk uhelse, og redusert prestasjonsutvikling. Talentutviklingsmiljøer bør oppfordres til å tilrettelegge for autonom fungering hos utøverne slik at de bedre kan beskyttes, støttes og hjelpes i å utvikle sitt fulle potensial både personlig og som utøvere.

Abbreviations

TD	Talent development
TDEs	Talent development environments
SDT	Self-Determination Theory
CET	Cognitive Evaluation Theory
OIT	Organismic Integration Theory
F-MPS	Frost Multidimensional Perfectionism Scale
PC	Perfectionistic concerns
PS	Perfectionistic strivings
MMR	Mixed-methods research
SEM	Structural equation modeling
CFA	Confirmatory factor analysis
EFA	Exploratory factor analysis
FIML	Full information maximum likelihood
MI	Measurement invariance
CI	Confidence intervals
LPA	Latent profile analysis
NSD	Norwegian Centre for Research Data

Table of Contents

Acknowledgements	I
List of Papers	III
Summary	IV
Sammendrag	VI
Abbreviations	VIII
Table of Contents.....	IX
Introduction.....	1
Becoming an Elite Junior Performer	1
The Framework of Self-Determination Theory	3
<i>The Motivational Process Model</i>	4
<i>Motivational Conditions</i>	4
<i>Basic Psychological Needs</i>	6
<i>Cognitive Evaluation Theory and Organismic Integration Theory</i>	8
Personal Determinants and Motivational Mentality	10
<i>Perfectionism</i>	10
<i>Inauthenticity</i>	12
Maladaptive Motivational Processes and Malfunctioning	13
The Present Doctoral Thesis	14
<i>Study 1 (Paper I)</i>	15
<i>Study 2 (Paper II)</i>	15
<i>Study 3 (Paper III)</i>	15
<i>Study 3 (Paper IV)</i>	16
<i>Study 4 (Paper V)</i>	16
Methods	17
Mixed -Methods Research	17
<i>Paradigmatic Approach</i>	17
<i>Integration Strategies and Justification</i>	18
<i>Quality Indicators</i>	21
Participants, Procedure, and Ethical Considerations	22
<i>Participants and Recruitment</i>	22
<i>Procedures</i>	23

<i>Ethical Considerations</i>	24
Data Generation and Qualitative Methods (Papers I and V)	24
<i>Semi-Structured Interviews</i>	25
<i>Thematic Analysis</i>	25
<i>Rigor and Quality (Papers I and V)</i>	27
Data Generation and Quantitative Methods (Papers II, III, and IV)	30
<i>Measures (Papers II, III, and IV)</i>	30
<i>Data Analyses</i>	32
Results	37
Paper I	37
Paper II	39
Paper III	43
Paper IV	45
Paper V	47
Discussion	49
Aim 1	49
Aim 2	54
General Discussion: Maladaptive Motivational Processes among Elite Junior Performers from Sports and the Performing Arts	58
<i>In Situ, Complex, and Emergent Motivational Processes</i>	60
<i>The Role of Self-Determined Functioning When Negotiating Maladaptive Motivational Processes</i>	61
<i>Malfunctioning and Ill-being</i>	62
<i>Applied Perspectives</i>	65
<i>Methodological Strengths and Limitations</i>	67
Conclusions	71
References	72
Papers I - V	
Appendices	

Introduction

Becoming an Elite Junior Performer

Reaching the top in sports and the performing arts is likely difficult, stressful, and full of striving (Baker & Young, 2014; Elliott, Drummond, & Knight, 2018; Pecun, Collins, & MacNamara, 2018). In order to fulfill your dreams, you must endure many years of deliberate practice in demanding TDEs (Correia & Rosado, 2018; Gustafsson, Sagar, & Stenling, 2017; Kerr & Stirling, 2017). Research on elite performers has shown that becoming an elite performer might be two-sided (Haerens, Aelterman, Vansteenkiste, Soenens, & Van Petegem, 2015; Quested & Duda, 2009, 2010; Van den Berghe, Vansteenkiste, Cardon, Kirk, & Haerens, 2014). One side is associated with many positive experiences of enjoyment, mastery, and well-being (Adie, Duda, & Ntoumanis, 2012; Kipp & Weiss, 2015). At the same time, however, the other side is linked to risks of facing stress, adversity, and ill-being (Hill, MacNamara, Collins, & Rodgers, 2016; Kristiansen & Roberts, 2010; Rice et al., 2016). Hence, the ability to survive, cope, learn, and develop from adversity might be crucial in order to succeed, retain mental health, and thrive (Mahoney, Ntoumanis, Mallett, & Gucciardi, 2014). For some elite junior performers, though, the perceived requests and stressors seem to be overwhelming (Lazarus, 2000; Lazarus & Folkman, 1984), resulting in dropping out, unfulfilled potential, and psychological ill-being (Drew et al., 2018; Gustafsson, DeFreese, & Madigan, 2017; Gustafsson et al., 2017; Hall & Hill, 2012; Hill et al., 2016). This is what scholars refer to as the “dark side of talent development,” which is an understudied area compared to “the bright side” (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011; Haerens et al., 2015). Focusing on maladaptive motivational processes as experienced by elite junior performers, the lens of the present doctoral thesis has been on this dark side of TD.

Motivation is found to be a salient psychological factor that affects elite junior performers' ability to endure and cope within their TDEs (Mahoney et al., 2014; Vansteenkiste, Sierens, Soenens, Luyckx, & Lens, 2009). According to SDT (Ryan & Deci, 2017), motivation might underpin why some elite junior performers survive and thrive in TDEs, despite experiencing adversity, while others seem to struggle and give in (Ryan & Deci, 2017; Vansteenkiste & Ryan, 2013). Furthermore, motivational functioning is influenced by both personal and conditional determinants (Haerens, Vansteenkiste, Aelterman, & Van den Berghe, 2016; Mahoney et al., 2014). Research from both sports and performing arts settings demonstrates that successful athletes and performing artists share many of the same positive psychological characteristics related to motivation (i.e., intrinsic motivation, high standards, dedication, and adaptive coping strategies)

Introduction

compared to less-successful performers (e.g., Jordet, 2016; MacNamara, Holmes, & Collins, 2006; Mahoney et al., 2014). However, research has also highlighted that some elite performers possess vulnerability dispositions, such as perfectionism, ego-orientation, obsessiveness, and anxiety disorders, which are likely debilitating to their motivation (Doron & Martinent, 2017; Gustafsson, Carlin, Podlog, Stenling, & Lindwall, 2018; Hill et al., 2016). Hence, elite junior performers might differ in their motivational mentality (i.e., robustness or vulnerability), underpinning diverse ways of perceiving and coping with contextual, relational, and situational demands (Doron & Martinent, 2017; Mahoney et al., 2014). Additionally, motivational conditions may vary across different contexts (e.g., cultures, domains, and traditions) and TD stages (e.g., sampling- or specialization-investment years; Côté, Baker, & Abernethy, 2007), likely influencing young performers' development and functioning in different ways (Ivarsson et al., 2015; Quested & Duda, 2010; Vansteenkiste & Ryan, 2013). With this in mind, the core of this doctoral work has been on the interplay between individual and contextual motivational determinants, and, in turn, their relationships with maladaptive motivational processes and various debilitating outcomes.

Awareness of the costs of pursuing excellence in pressurized and competitive TDEs, potentially compromising personal health and increasing psychological ill-being, has grown (Miller & Kerr, 2002). In order to help future talents in their processes of becoming elite performers, scholars ought to identify and prevent unhealthy pathways toward excellence and instead highlight how to facilitate high-quality educational practices that enhance growth, positive functioning, and thriving (Haerens et al., 2016; Larsen, Alfermann, Henriksen, & Christensen, 2013; Mallett & Hanrahan, 2004). Today, contemporary and more holistic views on TD are recognized, proposing to better balance performance development and personal development, as components that co-exist and require each other (Henriksen, 2010; Miller & Kerr, 2002). The holistic TD position emphasizes that the pathway to excellence is situated and complex (Henriksen, 2010; MacNamara, Button, & Collins, 2010b), in which different individual, conditional, and situational elements are set in play (Aggerholm, 2014; Henriksen, 2010). In fact, each TD story is likely unique, something that is refined in the process of becoming an elite performer (Aggerholm, 2014). Therefore, to capture the complex and intriguing nature of TD, this doctoral thesis employs mixed methods and combines various methods from both qualitative and quantitative research traditions (Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001; Maxwell, Chmiel, & Rogers, 2015).

Based on the aforementioned, the purpose of this doctoral thesis is to extend previous research on maladaptive motivational processes and gain deeper insight into the multifaceted and

Introduction

dynamic motivational processes of Norwegian elite junior performers from sports and the performing arts. The present doctoral work set out to investigate, through mixed methods, the relationships between motivational characteristics (who you are), contextual conditions (where you are), and various implications of thriving, striving, or surviving (i.e., the experienced motivational process). More specifically, the present thesis has two overall aims:

1. To investigate the relationships between perceived TDEs and elite junior performers' maladaptive motivational processes and various performance outcomes (Papers I, II, and V).
2. To investigate personal motivational determinants and their relationships with maladaptive motivational processes and various performance outcomes in elite junior performers (Papers I–V).

The present doctoral thesis consists of several chapters. After this introduction, the theoretical framework is presented, followed by the research questions that guided the five included papers. Next, overall methods and results of the five papers are outlined, before a general discussion is offered, including practical implications, methodological strengths and limitations, and conclusions.

The Framework of Self-Determination Theory

Motivation is fundamental to all human actions, as it is an energetic force that initiates behavior and determines its form, direction, intensity, and duration (Roberts, 2012; Ryan & Deci, 2017). In TDEs, optimal motivation may be crucial for the developmental process, achieved performance, and healthy participation. Motivational theories are many and rooted in different philosophical traditions (i.e., deterministic, mechanistic, organismic, or cognitive; Roberts, 2012). SDT, however, is a humanistic, organismic, and dialectical meta-theory comprised of six mini-theories of motivation and personality (Ryan & Deci, 2017), and this doctoral thesis involves the cognitive evaluation theory (CET), the organismic integration theory (OIT), and the basic psychological needs theory (BPNT). Further, SDT is grounded in the humanistic idea that people seek a coherent and true self with a sense of integrated unity and vitality (Ryan & Deci, 2017). Humans are viewed as organismic, born active and growth-oriented, constantly interacting with and integrating themselves into their environments. It is important in an educational perspective to stress that, according to SDT, people naturally and self-initiatedly move forward; they do not passively need to be pushed forward (Deci & Ryan, 2000). Lastly, the term *dialectical* points to the

Introduction

interaction between an active individual and the social context and to how social contexts such as TDEs create important conditions that either nurture or impede performers' active nature (Deci & Ryan, 2000). SDT acknowledges that the positive, growth-seeking, and thriving representations of human beings are not always expressed or achieved. Performers may behave passively, and they may engage in counterproductive behaviors that ultimately thwart internalization, growth, or well-being (Ryan & Deci, 2017; Vansteenkiste & Ryan, 2013). During the past few years, SDT-based scholars have progressively developed knowledge that helps us to better understand the roots of performers' maladaptive motivational functioning (Bartholomew et al., 2011; Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2009; Haerens et al., 2016). However, the research on maladaptive processes is still initial and sparse, and the present doctoral thesis intends to expand this line of SDT-based research.

The Motivational Process Model

The motivational process model, as visualized in Figure 1 and proposed by Vallerand (1997), is a sequence explaining the motivational process from an SDT perspective, comprising several of the mini-theories in SDT (Ryan & Deci, 2017). The process model is a central framework of this doctoral thesis, which explores several components and their associations in different ways, seeking nuances, deeper insights, and novel relationships within the model. The thesis focuses mainly on the maladaptive dark side path: *controlling conditions* → *basic needs frustration* → *controlled motivation and amotivation* → *malfunctioning and ill-being* (Ryan & Deci, 2017).



Figure 1. The SDT motivational process model (Vallerand, 1997).

Motivational Conditions

Guided by SDT, educational research within various domains has demonstrated that motivational conditions (i.e., teaching or coaching style) are important for the motivational pathways that nurture internalization, optimal growth, and well-being (Bartholomew et al., 2018; Haerens et al., 2015). Autonomy-supportive conditions typically have teachers and coaches that

Introduction

relate to the performers' perspectives, encourage self-initiative and exploration, offer relevant choices, and give constructive and informative feedback (Haerens et al., 2015; Haerens et al., 2018; Reeve, 2009). In contrast, in controlling conditions, teachers and coaches tend to enforce or manipulate a preconceived way of thinking, feeling, or behaving, and might indirectly push or pressure performers by the use of conditional regard (Assor, Kanat-Maymon, & Roth, 2014; Bartholomew et al., 2018; Haerens et al., 2016).

Research in sports and the performing arts has demonstrated that autonomy-supportive conditions nurture autonomous motivation, optimal functioning, and thriving, and are thus considered as supportive of adaptive TD processes (Evans & Bonneville-Roussy, 2016; Fransen, Boen, Vansteenkiste, Mertens, & Vande Broek, 2018; Hancox, 2014), whereas controlling conditions associate with controlled motivation, malfunctioning, and ill-being indicators (Bartholomew et al., 2011; Haerens et al., 2016; Soenens, Sierens, Vansteenkiste, Dochy, & Goossens, 2012). Even if the level of control is typically low and autonomy-supportive conditions co-occur, evidence suggests that controlling teaching represents a potentially solid and forceful predictor of maladaptive outcomes (Haerens et al., 2016; Haerens et al., 2018). Paradoxically, and despite the research evidence, controlling teaching and coaching styles appear to be common (Johnson, 2011; Pecen et al., 2018; Reeve, 2009). Yet, few studies including elite junior performers of TDEs from these domains, however, have investigated the role of controlling conditions, and thus, the need for research is essential.

Norwegian TDEs

This doctoral work, including its participants, is situated within the Norwegian TDEs. Norway is in many ways a typical small Scandinavian country characterized as having a comprehensive public welfare system. Based on social–democratic, nonhierarchical, and egalitarian values, the Scandinavian culture is solidly founded on autonomy (Arnesen & Lundahl, 2006; Ronglan, 2015). Embedded in this context, elite sports within the Scandinavian countries are often voluntary, and democratic sports organizations promote broad participation, sports sampling, late specialization, and healthy participation (Côté et al., 2007; Ronglan, 2015). The Scandinavian sport model has gained international interest (*New York Times*, 2019) in the way it has successfully highlighted the value of informal practice based on play instead of competitions, combined with a holistic and athlete-centered TD approach (i.e., balancing technical skills, mental skills, and attitudes in an individualized learning process; Côté et al., 2007; Henriksen, 2010; Ronglan, 2015). Such practices are in line with the recommended tenets of SDT (i.e., autonomy supportive, basic

Introduction

needs satisfaction, and autonomous motivation; Ryan & Deci, 2017) and are promoted to be evidence-based and sound TD (Grecic & Collins, 2013; Martindale, Collins, & Daubney, 2005; Miller & Kerr, 2002).

In contrast, TDEs in classical music and ballet are grounded in experience-based (Burwell, 2013; Nielsen, 2006) performance traditions that are consolidated over centuries (Lakes, 2005; Persson, 2000). TD schools are held at state-governed specialized universities (i.e., conservatoires) and are considered to involve early specialization and professionalization, asymmetric power relations, and formal top-down delivered learning methods (Nordin-Bates, Hill, Cumming, Aujla, & Redding, 2014; Pecen, Collins, & MacNamara, 2016; Stabell, 2018). They are seen as traditional TDEs focusing mainly on performance development (Miller & Kerr, 2002). For the student, the teacher is seen as an authority figure and gatekeeper, someone important to be approved by (Burwell, 2013; Pecen et al., 2016). This is reflected in a study of dance conservatoires, where 78.3% of students reported their teacher as the most important person in their career (Van Rossum, 2004). Moreover, the traditional learning methods (i.e., based on observation and imitation) may be seen as relatively passive and less self-determined (Johnston, 2006; Lakes, 2005; Persson, 2000). Especially in the ballet culture, students might experience objectification and control, underpinned by a fixation on extreme body-image demands and attitudes towards the need to “harden” and “put to the test” (Gray & Kunkel, 2001; Nordin-Bates, 2014). Music students are motivationally tested in other ways, as learning music typically demands self-practice for several hours each day. Hence, self-regulation and self-determined motivation are important qualities, but as research has pointed out, these skills are developed far too late in music students (Hatfield, 2016).

The performance domains manifested in these different Norwegian TDEs might provide distinct pedagogical and structural conditions of deliberate practice (Grecic & Collins, 2013; Lakes, 2005; Stabell, 2018) and thus nurture diverse motivational pathways and likely consequences. The comparative perspective in this doctoral thesis might bring about nuances to the role of motivational conditions within the SDT process model.

Basic Psychological Needs

Whether performers realize their natural tendencies toward internalization, psychological growth, and well-being depends on the fundamental nutrients required. In the same way that flowers need sunshine and water to flourish, SDT postulates that people need satisfaction of the three basic psychological needs for autonomy, competence, and relatedness to thrive (Ryan & Deci, 2000, 2017). Autonomy reflects our desire to act authentic and in line with our true self, our

Introduction

integrated values, and our interests. The core of autonomy is choice and volition, being the origin of one's actions, even if these actions are influenced by outside sources (Ryan & Deci, 2000, 2017). Competence refers to feelings of effectance and self-efficacy, and to the ability to master one's environments and experience opportunities to express, exercise, and enhance one's capabilities. Lastly, relatedness describes the tendency to feel connected to others, to belong. It involves being cared for and caring for others, as well as connecting to social groups and with one's community (Ryan & Deci, 2000, 2017). Satisfaction and support of these basic psychological needs are associated with the most optimal functioning and well-being in general, as well as in sports and the performing arts (Evans & Bonneville-Roussy, 2016; Quested & Duda, 2011a; Vansteenkiste & Ryan, 2013).

SDT postulates that persistent deprivation of any of the aforementioned needs has costs for health and well-being (Deci & Ryan, 2000, 2017; Vansteenkiste & Ryan, 2013). There is a distinct difference between the lack of fulfilment (i.e., low levels of satisfaction) and experienced needs frustration (i.e., thwarting), and unfulfilled needs do not relate as robustly to malfunctioning as frustrated needs (Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011; Van den Broeck, Ferris, Chang, & Rosen, 2016). When experiencing needs frustration, the three needs manifest in feelings of inferiority and failure (competence needs frustration), pressure and manipulation (autonomy needs frustration), and distance and isolation (relatedness needs frustration (Haerens et al., 2016; Vansteenkiste & Ryan, 2013). Indeed, needs frustration underpins a range of malfunctioning (i.e., compensatory behavior and substitute fulfillment) and ill-being (i.e., negative affect, performance anxiety, injuries, and burnout; Haerens et al., 2016; Jowett, Hill, Hall, & Curran, 2016; Quested & Duda, 2011a).

Most studies on basic needs have used a composite measure of needs satisfaction or frustration, which make it difficult to distinguish between the unique contributions and associations made by each need (Van den Broeck et al., 2016). However, studies examining each need have shown that athletes and performing arts performers are likely to experience differing levels of each of the three needs (Kipp & Weiss, 2015; Perreault, Gaudreau, Lapointe, & Lacroix, 2007; Quested & Duda, 2010). In fact, a review of several SDT-based studies in the work domain (Van den Broeck et al., 2016) concluded that it is not appropriate to average the three needs together or to use an overall needs satisfaction or frustration score. This conclusion was based on the findings of: (a) high correlations between the three needs (> 0.70), (b) each need generally predicting unique variance, and (c) each need not relating to all variables in an identical way (Van den Broeck et al.,

Introduction

2016). Specifically, the need for competence seemed to deviate in other directions than the two other needs (Quested & Duda, 2009; Van den Broeck et al., 2016). Furthermore, the need for competence is likely to play a key role among high-achieving performers (Fransen, Boen, et al., 2018; Mertens, Boen, Vande Broek, Vansteenkiste, & Fransen, 2018), as the TDEs are settings focusing on demonstrating excellence. In a study of Norwegian TDEs in music (Stabell, 2018), competence was found to be the core “currency” in negotiating social status and learning possibilities. Consequently, it appears appropriate to measure and investigate needs satisfaction and needs frustration separately, and to conduct more research on each need frustration in order to unveil the whole picture of the three psychological needs when investigating elite junior performers’ motivational processes (Bartholomew et al., 2011; Haerens et al., 2015).

Cognitive Evaluation Theory and Organismic Integration Theory

SDT views human behavior on a continuum between being self-determined (autonomous) and controlled, as visualized in Figure 2. Intrinsic motivation represents an archetype of self-determined behavior and is a motivation defined as actions that you engage in “for its own sake,” as those activities you find fun, enjoying, or interesting per se and will engage in naturally and spontaneously (Ryan & Deci, 2017). Intrinsically motivated performers have an internal perceived locus of causality and act more authentic and in line with their true selves. In the CET mini-theory, the social and environmental factors that facilitate (i.e., autonomy-supportive) or undermine (i.e., controlling) intrinsic motivation are addressed (Deci & Ryan, 2002). According to SDT, to maintain intrinsic motivation, satisfaction of the three psychological needs is essential, and needs frustration has been demonstrated to weaken and impede people’s intrinsic motivation (Deci & Ryan, 2000, 2017).

As aforementioned, becoming an elite junior performer and engaging in goal-demanded deliberate practice within TDEs is surely not always about fun, pleasure, or engaging in interesting tasks. For instance, performers might practice technical details for hours or do painful and challenging specific training (i.e., endurance, strength, and flexibility training). Hence, extrinsic motivation causing tasks to be carried out because they are the means at the end of success, or to meet expectations from teachers or coaches, is very likely in TDEs.

Introduction

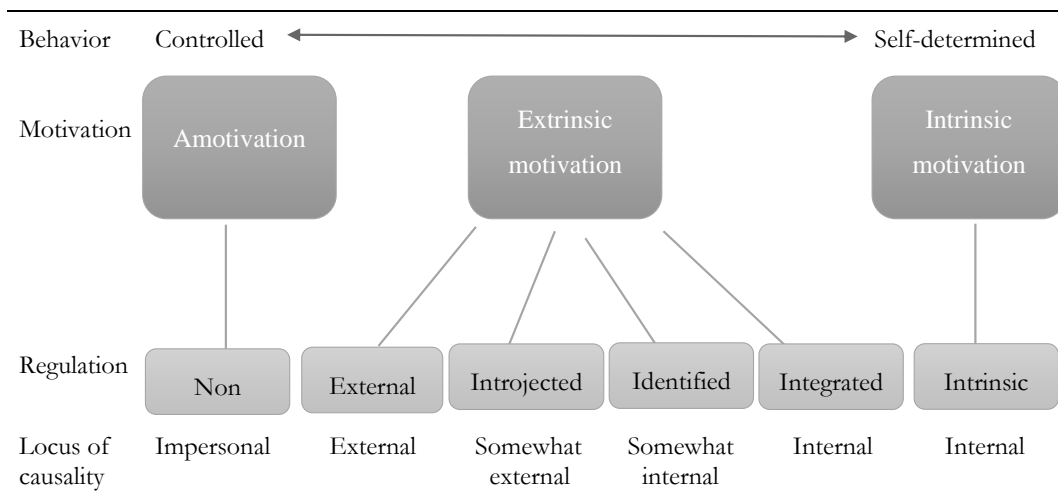


Figure 2. The self-determination continuum, presenting the motivation, regulation, and perceived locus of causality of behaviors (adapted from Deci & Ryan, 2000, p. 237).

According to the OIT mini-theory, extrinsic motivation comprises four types of behavioral regulations differentiated by the degree of self-determination. The process of internalizing extrinsic motivation is promoted as an active socialization process (i.e., organismic–dialectical) where the individual transforms external regulations into inner values (Deci & Ryan, 2000, 2017). There are four forms of regulations: integrated, identified, introjected, and external. When driven by autonomous regulation, one endorses an activity with authenticity, either because it is interesting or meaningful (integrated regulation), or personally important and beneficial (identified regulation; Deci & Ryan, 2000, 2017). Conversely, controlled motivation that is less autonomous derives from internal or external control and is driven by obligation, guilt, or shame (introjected regulation) or by coercive demands, pressure, or rewards (external regulation; Ryan & Deci, 2017; Vansteenkiste et al., 2009).

Amotivation, the third type of motivation in the SDT framework (alongside intrinsic and extrinsic), is associated with non-regulation and is characterized by feelings of incompetence and lack of meaning (Deci & Ryan, 2000, 2017). An elite performer may have multiple motives and regulations in play that together determine the overall quality of motivation (Deci & Ryan, 2000,

Introduction

2017). For example, elite athletes have been found to possess both high levels of autonomous and controlled motivation, and even some degree of amotivation (Gustafsson et al., 2018).

The majority of SDT-based research has studied motivation dichotomously, investigating associations with either autonomous or controlled motivation, or as an index of the relative level of autonomy (Ryan & Deci, 2017). The evidence within sports and the performing arts reveals that higher levels of self-determined motivation are associated with higher levels of performers' enjoyment, persistence, coping strategies, performance, and experienced well-being (Evans & Bonneville-Roussy, 2016; Quested & Duda, 2011b; Van den Berghe et al., 2014). However, the composites of the quality of motivation matter, and various types of motivation variously predict cognitive, emotional, and behavioral outcomes (Chu, Zhang, & Hung, 2018; Gustafsson et al., 2018; Quested, 2014). Consequently, when examining behavior regulations, to add explanatory value and extend the SDT-based research, researchers are urged to analyze them separately (i.e., variable-based approaches) or multidimensionally (i.e., person-centered designs; Gustafsson et al., 2018; Hancox, Quested, Viladrich, & Duda, 2015; Ryan & Deci, 2017).

Personal Determinants and Motivational Mentality

Even if SDT stipulates the basic psychological needs as innate and existing in all individuals, the theory also recognizes that there are between-person differences (i.e., personality) that affect motivational processes. The role of individuals (who you are) in interaction with the motivational conditions (where you are) are both likely to interplay and influence the degree of needs satisfaction and frustration, and, in turn, the quality of motivation and functioning (Deci & Ryan, 2000). The individual differences are predisposed in the performers' motivational mentality and influence how they orient toward the social environment and operate within conditions that the TDEs offers (Hatfield, 2016; Ryan & Deci, 2017). In this doctoral work, focusing on the maladaptive motivational processes in elite junior performers, motivational mentality is examined in light of the vulnerability dispositions of perfectionism, and to a lesser extent, the SDT-related concept of inauthenticity (Hill, Jowett, & Mallinson-Howard, 2017; Ryan & Ryan, 2018).

Perfectionism

Perfectionism is a complex and multidimensional motivational characteristic, associated with increased vulnerability for malfunctioning and poor mental health (Hill et al., 2017), prevalent among elite performers from sports and the performing arts (Dunn, Dunn, & McDonald, 2012; Patston & Osborne, 2016; Quested, 2014). It is defined as the pursuit of extremely high standards,

Introduction

accompanied by overly critical and biased self-assessments (Hill, 2016). Regarding motivational processes, perfectionism is viewed as a paradoxical characteristic that energizes a strong motivational force (i.e., dedication, effort, or persistence), yet might also nurture debilitating patterns of cognition, emotion, and behavior (Hall, Hill, & Appleton, 2012; Hall, 2016; Hill, Burland, King, & Pitts, 2019). The label “successful failures” was proposed (Hall, 2016), reflective of perfectionistic performers’ biased ways of interpreting competence and monitoring for imperfection, despite high achievements (Shafran, Cooper, & Fairburn, 2002). To create a functional homogeneity of the construct, contemporary theories of perfectionism often adopt a hierarchical model of two main dimensions unifying the diverse sub-dimensions and measurements that exists (Hill, 2016). Perfectionistic striving (PS) are associated with a strong desire to reach perfection, perform flawlessly, and perform at very high standards, representing mainly self-directed forms of perfectionism. Conversely, perfectionistic concerns (PC), which are generally socially derived, are manifested by combinations of concern over mistakes, doubt about actions, fear of failure, and social rejection due to failure (Hewitt, Flett, Turnbull-Donovan, & Mikail, 1991; Hill, 2016).

There are different opinions in the perfectionism literature concerning whether one has to possess both PS and PC to warrant the label perfectionist (Hill, 2016). Some scholars argue that PS may function as a more adaptive dimension if PC are low (Gotwals, Stoeber, Dunn, & Stoll, 2012; Hill, Mallinson, & Jowett, 2016), while others claim that the two coexist. Moreover, they argue that PC are a latent maladaptive counterpart to PS when perceived competence and self-worth are threatened, such as when faced with adversity and failure (Hill, 2016). The research evidence on PC has shown consistent associations to a range of maladaptive and unhealthy outcomes (i.e., basic needs frustration, controlled motivation, amotivation, lack of coping strategies, fear of failure, performance anxiety, and burnout) likely to be debilitating of optimal performance development (Gotwals et al., 2012; Hill et al., 2016; Stoeber, Otto, Pescheck, Becker, & Stoll, 2007). Conversely, PS are ambiguously associated (non-related, positive, negative), with similar outcomes (ibid).

Elite junior performers may vary in their degree and composition of PS and PC in the same way they can vary in their combination of motivational regulations (Gaudreau, 2016; Hill & Madigan, 2017; Nordin-Bates, Raedeke, & Madigan, 2017). Different profiles of perfectionism dimensions affect the way performers relate to the requirements and conditions embedded in the TDEs, influencing differences regarding vulnerability, stress, and coping strategies (Flett & Hewitt,

Introduction

2016). This has been echoed in studies using person-centered analyses, such as the 2×2 model of perfectionism (Gaudreau, 2016; Hill & Madigan, 2017; Nordin-Bates et al., 2017). The conclusions of studies on dancers and athletes using person-centered approaches, such as the 2×2 model of perfectionism,¹ are partially in support of differences between perfectionism profiles in a range of outcomes (e.g., motivational regulations, performance anxiety, and burnout; Crocker, Gaudreau, Mosewich, & Kljajic, 2014; Gaudreau, 2016; Quested, 2014). More specifically, results support the advantage of a non-perfectionism profile (low PS, low PC) and internally driven forms of perfectionism reflected in PS (Kljajic, Gaudreau, & Franche, 2017). Moreover, results supported the clear disadvantage and maladaptive nature of PC (low PS, high PC), which derive from conditional regard. However, inconsistent findings between a mixed (high PC and high PS) versus a PC profile (low PS and high PC), and between a non-perfectionism profile and PS profiles, were found (Gaudreau & Verner-Filion, 2012; Hill & Madigan, 2017; Nordin-Bates et al., 2017). In light of the aforementioned, perfectionism as a multidimensional motivational disposition might be an important and intriguing factor to investigate in relation to elite junior performers' maladaptive motivational processes.

Inauthenticity

SDT is highlighting authenticity as it entails autonomy (Ryan & Ryan, 2018). Authenticity is defined as congruent self-endorsing of one's actions and is the antitheses of inauthenticity (Assor, 2017; Ryan & Ryan, 2018). Indeed, SDT puts authenticity at the center of its predictions concerning self-determined motivation, positive functioning, internalization, and thriving (Assor, 2017; Ryan & Ryan, 2018). Inauthenticity, however, is located at a different end of the scale, underpinned by thwarted autonomy. Conceptually, the authentic personality (Wood, Linley, Maltby, Baliousis, & Joseph, 2008) consists of three sub-dimensions; self-alienation and accepting external influence, as indicators of inauthenticity, alongside authentic living, which indicates authenticity. However, the dimensions are not orthogonal (Wood et al., 2008). Self-alienation reflects not being in contact with one's true self, while accepting external influence echoes to which extent one conforms to external expectations and accepts the influence of others (Wood et al., 2008). Reporting high acceptance of external influence is likely to lead to higher reported self-alienation (Taris & Van den Bosch, 2018; Wood et al., 2008). Thus, inauthenticity represents an indicator of socially derived

¹ Hypothesis concerning the four suggested perfectionism profiles (Gaudreau, 2016): 1a: PS > non-perfectionism; 1b: PS < non-perfectionism; 1c: PS = non-perfectionism; hypothesis 2: non-perfectionism > PC; hypothesis 3: mixed perfectionism > PC; hypothesis 4: PS > mixed perfectionism. > means better psychological adjustment, = means equivalent psychological adjustment).

behavior and is the driver behind controlled motivation and amotivation (Ryan & Deci, 2017; Ryan & Ryan, 2018). Accordingly, high levels of inauthenticity (self-alienation and accepting external influence) are associated with higher levels of controlled motivation and ill-being outcomes, and self-alienation is particularly related to psychopathology (Kernis & Goldman, 2006; Ryan & Ryan, 2018; Taris & Van den Bosch, 2018).

In summary, the vulnerability characteristics of perfectionism and inauthenticity are likely to influence the motivational mentality underpinning the motivational processes of elite junior performers, a vulnerability that is likely to be at a peak within stressful, competitive, and demanding TDEs (Hill et al., 2016; Rice et al., 2016). Hence, in the present doctoral thesis, it is postulated that perfectionism and inauthenticity could be offering explanatory power as to when and why elite junior performers' motivational processes turn in (mal)adaptive directions.

Maladaptive Motivational Processes and Malfunctioning

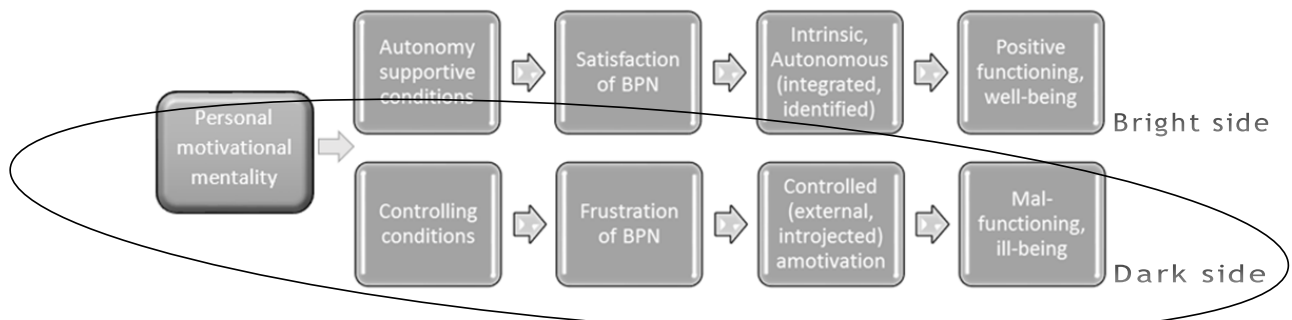


Figure 3. The full motivational process model used in the doctoral thesis, focusing mainly on the dark side path.

In light of the aforementioned focus on the dark side motivational process model, this doctoral thesis' lens is on the process, as visualized in Figure 3, more than the phenomena represented by each motivational consequence. Specifically, the present doctoral thesis examines how the interplay between individual and conditional determinants is related to basic psychological needs frustration, and, in turn, malfunctioning (i.e., controlled motivation, performance anxiety, and exhaustion; Gucciardi, Mahoney, Jalleh, Donovan, & Parkes, 2012; Mallinson & Hill, 2011; Nordin-Bates et al., 2017; van den Bosch & Taris, 2014).

Introduction

A range of outcomes is examined in the SDT-based literature as indicators of experienced malfunctioning and ill-being (Gustafsson et al., 2018; Haerens et al., 2016; Hancox, Quested, Ntoumanis, & Duda, 2016; Mouratidis & Michou, 2011). In this doctoral thesis, we use various indicators and approaches. In the qualitative studies (papers I and V), the scope has been broad and more holistic, focusing on the situated and dynamic nature of how performers perceive their participation in their activity in relation to their motivational processes, performance development, and general experienced well- and ill-being. In the quantitative studies, we used motivational regulations (Papers II, III, and IV), as well as the stress-related outcomes of performance anxiety (Papers II, III, and IV) and physical and mental exhaustion (Papers III and IV), and performance level (Paper IV) as outcomes.

Controlled motivation is posited as low-quality motivation, associated with less engagement and persistence, as well as avoidance-coping (Mahoney et al., 2014; Mouratidis & Michou, 2011). Performance anxiety and exhaustion are both considered stress-related outcomes that reflect a perceived imbalance between experienced resources and situational requests, likely to negatively affect coping strategies and performance outcomes (Gustafsson et al., 2017; Lazarus, 2000; Miller & Chesky, 2004). Performance anxiety is experienced as situational stress before and during competition (Correia & Rosado, 2018; Lazarus, 2000), whereas exhaustion is experienced as a consequence of stress (Gustafsson et al., 2017). Performance anxiety reflects somatic anxiety (i.e., increased heart rate and muscle tension), cognitive anxiety (i.e., worry, catastrophizing, and negative self-talk), and self-confidence (i.e., doubts in one's abilities; Krane, 1994; Martens, Burton, Vealey, Bump, & Smith, 1990). The latter are found to be most strongly related to elite performers, unanimously interpreted as debilitating to performance (Miller & Chesky, 2004; Walker & Nordin-Bates, 2010). Exhaustion has been highlighted as the core and most important sub-dimension of burnout, characterized by a reduction of emotional and physical resources beyond those associated with training and competition (Gustafsson, Lundkvist, Podlog, & Lundqvist, 2016).

Together, introjected and external motivation, performance anxiety, and exhaustion are a set of indicators of maladaptive motivational processes that might increase the risks of hampered performance development in elite junior performers (Bartholomew et al., 2011; Gustafsson et al., 2017; Gustafsson et al., 2018; Mainwaring & Finney, 2017; Miller & Chesky, 2004).

The Present Doctoral Thesis

The overall purpose of the present doctoral thesis is to investigate individual and contextual

Introduction

factors associated with elite junior performers' maladaptive motivational processes and, in turn, examine how these factors relate to the performers' motivational processes, their experiences of psychological ill-being, and performance development.

Study 1 (Paper I)

Study 1 (Paper I) was a qualitative exploratory study. The purpose was to link theory and practice by identifying important variables grounded in the practice fields and better prepare the theoretical conceptualization of tested models in Study 2. Hence, the research question was broad and open:

- In what ways did elite performers in classical music, ballet, and sports experience and characterize their TD learning conditions, and how did these experiences relate to the performers' motivational processes and well-being?

Study 2 (Paper II)

In the second, cross-sectional quantitative study, we tested a conditional process model from the dark side motivational process model, based on key findings from Study 1 (Paper I), guided by the tenets of SDT. Perfectionism was brought in as a central personal determinant. The aim was to examine why and under what circumstances PC were associated with controlled motivation and performance anxiety. The research question was:

- Is the relationship between PC and (a) introjected motivation, (b) external motivation, and (c) performance anxiety, through basic psychological needs frustration, conditional of controlling teaching or coaching conditions in a sample of Norwegian elite junior performers from sports and the performing arts?

Study 3 (Paper III)

In paper III, we extended some of the key findings from Study 2 (Paper II) with longitudinal data. Specifically, we examined change in each basic need frustration as the driving mechanism of maladaptive motivational processes. We used a person-centered growth mixture modeling approach (Berlin, Parra, & Williams, 2013) to test the extent to which change patterns (i.e., growth profiles) during a period of nine months (Time 1–Time 3) of each basic need frustration existed. Subsequently, we tested if the levels of perfectionism sub-dimensions from PS and PC (i.e., PS; personal standards and COM; concern over mistakes), measured at baseline, differed between the identified growth profiles of each need frustration, respectively. In addition, we examined whether the different growth curves led to higher or lower levels of performance anxiety and perceived performance level at Time 3. An additional advantage with this approach was that person-centered

Introduction

analyses allow investigation of probability of distribution in the identified growth profiles, based on background variables such as domain and gender. We focused on the two following research questions:

- Can unique growth profiles of elite junior performers' basic needs frustration over a period of nine months be identified, and are there differences in COM and PC between the identified growth curve profiles at baseline?
- Are there group differences between the identified growth curves profiles on self-reported performance anxiety and perceived performance level in the end of the period?

Study 3 (Paper IV)

In Paper IV, we used the same longitudinal data as in Paper III, and we also continued with a person-centered analytical approach. Based on the findings in Paper III, we explored why different composites of perfectionism dimensions would turn in (mal)adaptive directions and used two inauthenticity dimensions as explanatory components in the profiles. Subsequently, we compared the identified perfectionism and inauthenticity latent profiles relative to a set of debilitating motivational outcomes. Finally, we explored the distribution of domain and gender in the growth profiles. We asked the following two research questions:

- Can unique profiles based on elite junior performers' levels of perfectionism and inauthenticity dimensions, measured at baseline, be identified?
- Are there group differences between the identified profiles on self-reported introjected motivation, external motivation, performance anxiety, and experiences of exhaustion nine months later?

Study 4 (Paper V)

Finally, in the fourth study, we wanted to do a qualitative follow-up study to get rich and complex data to unfold and explain the initial findings retained from the previous quantitative studies (Papers II, III, and IV). Hence, we targeted vulnerable elite junior performers that reported high scores on basic needs frustration in Study 2 (Paper II) and aimed to explore how performers facing a situation of adversity and maladaptive functioning negotiated with their situations. The following research question guided our work:

- How do Norwegian elite junior performers perceive and experience their maladaptive motivational functioning, and how do they negotiate with their vulnerable situation?

Methods

Mixed -Methods Research

Methodological diversity is proposed as being necessary to match the variety of phenomena in the situated and complex nature of performance education, such as motivational processes (Kaplan, Katz, & Flum, 2012). The field of education has been criticized from within to be fragmented, disconnected from the professions, and of too little practical relevance (Carr, 2007; Hargreaves, 1996). In the field of sport psychology, critique has been raised toward the dominant position of quantitative psychometric measurement studies and the lack of diversity in the use of research methods (Biddle et al., 2001; Collins & Cruickshank, 2017; Sparkes, 2015). Regarding the field of motivation, similar criticisms related to lack of relevance and methodological diversity have been proposed (Kaplan, Katz, and Flum, 2012). Mixed-methods research (MMR) is therefore suggested to be a methodology that bridges the quantitative and qualitative traditions, paradigms, methodological framework, and academic disciplines, a methodology that ought to unite an empirically rigorous and valid knowledge production with applied relevance, aiming for both theory-based and applied research (W. Carr, 2007), not as a new dichotomy, but as holistic research that is cross-disciplinary, flexible, integrative, multiphase, and iterative in nature (Hall & Howard, 2008). Thus, it is highly applicable to the process of becoming a researcher and conducting a doctoral thesis.

Paradigmatic Approach

The more traditional position within philosophy of science is that different paradigms represent incommensurable philosophical assumptions, and that integration is impossible (Bergman, 2008; Creswell, 2011). MMR proposes a synergistic approach, which takes an anti-dualistic stance to view the world (Onwuegbuzie, Johnson, & Collins, 2009). The approach is described as complementary pluralism, which dialectically examines multiple perspectives and realities (i.e., subjective, intersubjective, and objective) and creates workable and pragmatic approaches in addressing important research questions and methods that best answer the aims and research questions at hand (Hall & Howard, 2008; Teddlie & Tashakkori, 2010). However, these matters are still an ongoing discourse within philosophy of science and within MMR methodology, and different positions exist within MMR (Creswell, 2011). Most MMR is conducted within the stance of pragmatism, which reflects a need to renegotiate social science and adapt more holistic

Methods

and integrated research approaches (Bergman, 2008; Bryman, 2008).

This doctoral thesis, however, is positioned within the paradigm of critical realism (Lund, 2005; Maxwell & Mittapalli, 2010) and is an MMR that seeks paradigmatic alignment and integration (to a lesser extent; i.e., mono-methodological data collection and analysis; Bryman, 2008). The critical realism stance is based on the work of Bhaskar, Collier, Lawson, and Norrie (1998), merging a classical realist ontology believing that the world exists independent of our perceptions of it, with an interpretative epistemology that sees the understanding of the world as constructed and colored by subjective viewpoints (Maxwell & Mittapalli, 2010). The term *critical* connects the position to general critical theory, which adds political, ethical, and progressive dimensions (Bhaskar et al., 1998; Maxwell & Mittapalli, 2010). Critical realists seek explanatory understanding of the mechanisms underpinning real entities (i.e., materially real, ideally real, socially real, or artifactually real; Nichol, Hall, Vickery, & Hayes, 2017). Critical realists posit that these real entities are part of complex and emergent processes (i.e., the way a set of parts are related to each other and situated), as illustrated by the motivational process model experienced by elite junior performers (Nichol et al., 2017). Consequently, the critical realist stance is grounded within methodology that is interdisciplinary and complex, enabled to grasp the nuances of the emergence of situated social processes that produce action and behavior (Nichol et al., 2017).

In the present doctoral work, critical realism provides an opportunity to ask both theory- and practice-driven research questions, use different complementary data, and shift between emic (within) and etic (outside) perspectives (Onwuegbuzie & Johnson, 2006). Quantitative data search for conceptualized associations and pathways in the motivational process model (i.e., relations and mechanisms), whereas the qualitative data intend to provide insight into the situated, multidimensional, and complex nature of such processes (i.e., the notion of emergence) and unfold the underlying “why,” “how,” and “when” of the demonstrated motivational associations and patterns.

Integration Strategies and Justification

There are several ways and justifications within MMR of mixing and integrating different methods (i.e., in phases or concurrent, exploratory or explanatory), as well as discussions regarding the validity and quality of the inferences (Bryman, 2008; Risjord, Dunbar, & Moloney, 2002). MMR, underpinned by the critical realism stance, often uses parallel within-paradigm data collection, analysis, and inference strategies, and integrates at a minimum level (Onwuegbuzie et al., 2009). Thus, the present doctoral work used an iterative sequential multiphase MMR design as visualized in Figure 4.

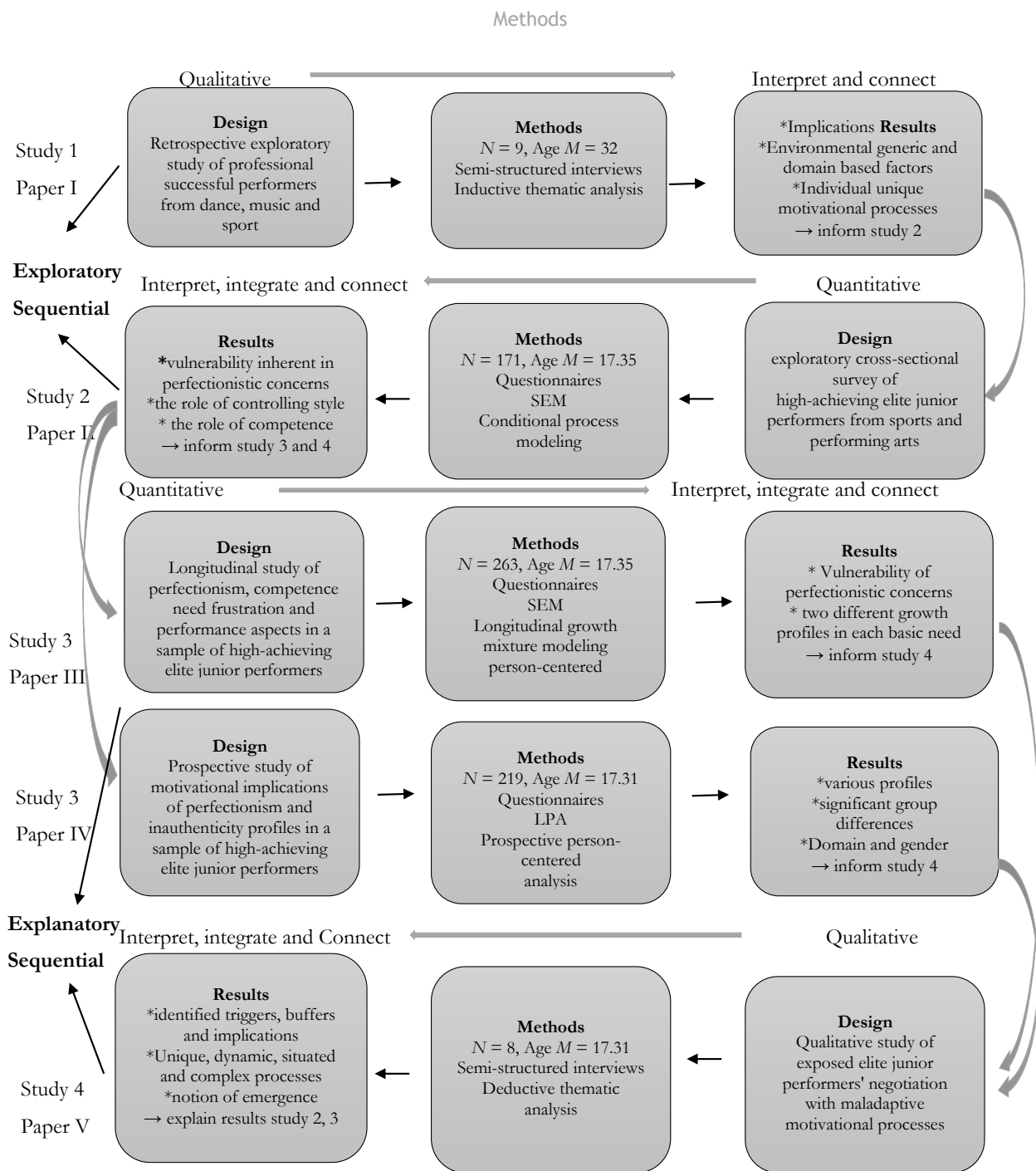


Figure 4. The overall iterative sequential multiphase MMR design of the doctoral thesis. Data were collected over 24 months. Study 1, autumn 2016; study 2, spring 2017; study 3, longitudinal from October 2017 to June 2018; study 4, in between October 2017 and June 2018.

Methods

A sequential design is divided in phases, in which data collected and analyzed from one phase are used to inform and develop the next phase. The first two studies used an exploratory sequential approach (Studies 1 and 2, Papers I and II), applying qualitative methods to inform the second quantitative part. One advantage of this design is the possibility to justify the conceptualization from the bottom up and identify important variables and measures grounded in the practical fields, and thus, to get a better alignment between theory and practice. In explanatory designs (Studies 3 and 4, Papers III, IV, and V), the qualitative follow-up approach was utilized to further explain the findings from the first quantitative parts (Bergman, 2008). The advantage of this design is the possibility to get rich and more complex data to unfold the experiences and explanations that underpin initial findings from the quantitative results (Bergman, 2008).

Table 1
Justification of Mixed Methods Related to the Applied Sequential Design

Type of justification	Explanation
<i>Completeness</i>	To bring together a more comprehensive and context sensitive account of the performance area of investigation.
<i>Different research questions</i>	To be able to ask and examine different research questions
<i>Triangulation</i>	To seeks corroboration, convergence, and correspondence between different types of data collected from the same phenomena
<i>Sampling</i>	One approach is used to facilitate the sampling of respondents or cases.
<i>Offset</i>	To balance strength and weaknesses from both quantitative/qualitative methods in combining them
<i>Credibility</i>	To strengthen the integrity and validity through employing both approaches
<i>Context</i>	To add context to trends when combining both approaches
<i>Expansion</i>	To extend the breadth and range of the research enquiry by using different methods
<i>Utility</i>	To seek a more applied perspective through combining basic and applied research
<i>Development</i>	To seek to evolve the inquiry iteratively in a process of development
<i>Initiation</i>	To discover paradox and contradictions in order to do a recasting and adjustments of the project
<i>Explanation</i>	To use one method to help explain findings from the other
<i>Illustration</i>	To use qualitative data to illustrate quantitative findings
<i>Instrument development</i>	To use one method to inform and develop measurements in the other

The advantages of conducting MMR and integrating qualitative and quantitative methods are many, and Table 1 offers a list of the justifications made in this doctoral work (Bryman, 2006, 2008; Risjord et al., 2002). The strengths are linked to the conceptualization (i.e., completeness,

Methods

different research questions, utility, and development), research design (i.e., triangulation, expansion, and sampling), data collection and analysis (i.e., context and instrument development), and research claims and validation (i.e., offset, credibility, initiation, explanation, illustration; Bryman, 2006, 2008; Risjord et al., 2002). However, concerns about sampling and sample size, data integration, different quality criteria, contradictory findings, timeframes, and competence of the researcher(s) are important challenges to note when doing MMR (Creswell, Clark, & Garrett, 2008; Onwuegbuzie et al., 2009). Therefore, to minimize such methodological trials within the timeframe of a doctoral project, a parallel mono-methodological approach, with integration only on the conceptual level, was applied in the overall research aims, discussion, and conclusion. This strategy was also in line with the critical realism stance (Onwuegbuzie et al., 2009).

Quality Indicators

The different methodologies of qualitative and quantitative research relate to different quality criteria and concepts (i.e., validity, reliability, credibility, rigor, trustworthiness, and reflexivity; O’Cathain, 2010; Shadish, Cook, & Campbell, 2002). In addition, the interpretation and use of common concepts across qualitative and quantitative methodology, such as reliability, validity, and generalizability, are also distinct (Creswell, 2014; Lund, 2012). Lastly, in the MMR literature, there are several developed MMR validity criteria and concepts (Onwuegbuzie & Johnson, 2006). Hence, integration of quality criteria and judgments may be particularly challenging in MMR, as shown in Figure 5.

In line with the sequential and parallel MMR design employed in this doctoral work, validity and rigor are mainly addressed separately in each paper related to the either qualitative or quantitative methodology. However, the present thesis has taken into account some of the specific and relevant MMR validity types (Onwuegbuzie & Johnson, 2006). First, sample integration refers to the relationship between the quantitative and qualitative sampling strategies, and if they are comparable and underpin quality meta- inferences, such as examining and justifying how the purposefully selected and overlapping samples from the same high-achieving population pool, in the present thesis’ four sub-studies, meet the criteria of homogeneity, coherence, and comparability (Onwuegbuzie et al., 2009).

Second, the emic-etic criteria focus on how MMR applies and combines a justified inside (i.e., the viewpoint of the inside performer) and outside (i.e., the viewpoint of the research observer looking in) perspective in balanced meta-inferences (Onwuegbuzie et al., 2009). The use of peer debriefing (etic) and member checking (emic) might be useful strategies to transfer to the meta-inference level. In this doctoral work, the criteria are primary faced by the structuring of the

Methods

sequential research design, including both quantitative (etic) and qualitative (emic) perspectives that are underpinned by the overall research aims and meta-discussions in the end.

Third, triangulation refers to the convergence of results from different methods, data sources, or theoretical perspectives, and in which ways they are made in a sound, transparent, and justified way (Onwuegbuzie et al., 2009). The use of reflexivity, understood as a process of monitoring and meta-reflecting oneself, the research process, and ongoing methodological challenges, might be a preferable strategy to meet these criteria.

Lastly, the sequential criteria ought to reflect on how the meta-inferences could be affected by the sequencing phases, and if the sequence in itself is a threat to the validity (Onwuegbuzie & Johnson, 2006).

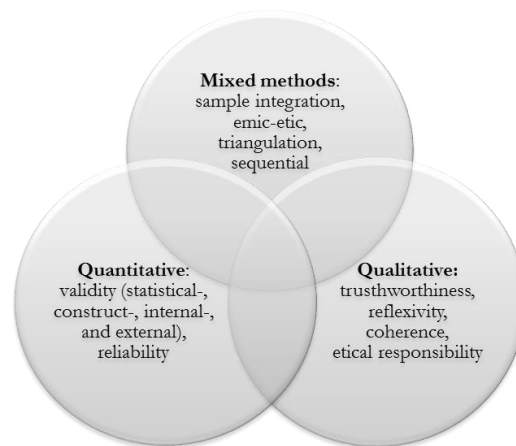


Figure 5. Different quality criteria within quantitative, qualitative, and mixed methods research.

Participants, Procedure, and Ethical Considerations

Participants and Recruitment

The present doctoral thesis consists of four sub-studies (five papers), all aimed at examining the motivational processes of elite junior performers from sports and the performing arts in Norway. Hence, we purposefully selected participants in their investment years (Côté et al., 2007), based on two main inclusion criteria: (a) high-achieving performers within the top 20% of their age group in their activity (b) selected to and attending prestigious junior TDE schools parallel to upper secondary school (ages 16–19). The TDEs in sports are run by the national sports federations in

Methods

collaboration with the Norwegian Olympic Center and specialized private high schools for elite sports. The junior athletes were recruited from the individual sports of swimming, rowing, athletics, skating, cross-country skiing, biathlon, and alpine skiing. Within the performing arts, specialized universities operate the TDE schools (i.e., conservatoires), and the recruited performers were students at TDEs within classical ballet and symphonic music. As all programs had entrance regulated by competitive auditions and offered both acceleration and enrichment (Côté et al., 2007), the elite junior performers had extensive previous experience of deliberate practice ($M = 9.34$, $SD = 3.31$) and spent many hours a week ($M = 21.01$, $SD = 7.74$) practicing their activity. Other studies of successful versus less successful elite performers across domains have found that elite performers are a distinct and somewhat homogeneous population, sharing many similar generic psychological characteristics (Ericsson, Starkes, & Ericsson, 2003; MacNamara, Holmes, & Collins, 2008).

The quantitative studies (Papers II, III, and IV) gained an overall response rate of 80%, and thus, the sample represents a unique group of the best elite junior performers from the selected domains present in the small country of Norway (about 5 million inhabitants). In the qualitative studies (Papers I and V), we targeted the same population, but guided by specified intentions to get as rich data as possible (Lancaster, 2017). In the first exploratory study that was guided by a broad and holistic aim, we targeted successful performers who had previous experience from these specific TDEs. As a contrast to junior performers who may lack deep reflections on long-term impact, the established performers could provide long-termed meta-reflections of their talent development processes (Lancaster, 2017). However, in the fourth and final study, which served an explanatory purpose, we used results from Study 2 to identify a sample of exposed elite junior performers associated with maladaptive motivational processes. We recruited performers who scored highly (above 4.5 on a 7-point Likert scale) on frustration of the basic psychological needs.

Procedures

We recruited the participants through a dialogue with sport federations, national teams, and leaders of TDE schools. The qualitative data were collected and audio recorded face-to-face by the candidate, following a pre-determined interview guide. In turn, the data were transcribed into text and analyzed in NVivo 11. The quantitative data were collected using a digital survey tool called SurveyXACT, and the participants received a personal link by email. In collaboration with the national sport federations and specialized art schools, the doctoral candidate traveled to inform about the studies, to collect the data directly in separate activity groups, and to facilitate and monitor the data collection settings. For some participants, however, the survey was answered

Methods

privately due to a lack of scheduled national team practices or due to absence. Completing the questionnaire package took an average of 20 minutes. Finally, the data were transferred to IBM Statistics SPS 24.0 and then to *Mplus* version 8 for data analysis.

Ethical Considerations

The sub-studies of the thesis were carried out after ethical approval of the protocol by the Norwegian Center for Research Data (see Appendix 1). All participants voluntarily consented to participate in accordance with the Declaration of Helsinki, after receiving oral and/or written information about the study, the voluntary nature of participating, and how the confidentiality was obtained (see Appendix 2). The participants were not characterized as vulnerable participants, as they were past the age of 16, and no sensitive health information was collected.

In the qualitative interview studies (Papers I and V), however, as asymmetric power relationships are present in all research with humans (Lancaster, 2017), steps to safeguard the participants were made (Tanggaard, 2009). An active use of positioned reflexivity (i.e., the role of the researcher as situated in, and related to, the studied phenomena) was attained (Finlay, 2002b; Kuehner, Ploder, & Langer, 2016) to create a safe setting and facilitate authenticity in the interview situations (Berger, 2015). First, an interview guide was used as a tool to minimize the personal role of the researcher in the interview settings. Second, the candidate prepared for an observer position and played the roles of facilitator, active listener, and supportive audience, specifically through ways of welcoming and creating security for the participants in the introduction phase, ways of showing interest, to be emphatic and supporting, and ways of using body language and communication tools in order to be a good listener (Drever, 1995; Finlay, 2002b). Lastly, the doctoral candidate did not reveal her own opinions or experiences, and avoided joining in on the discussions by sharing relevant experiences. These strategies were all used with the intention to get as honest and open-minded reflections from the participants as possible, and to safeguard the research ethics of balanced, voluntary, and unpressured accounts (Brinkmann & Kvale, 2008; Morrow, 2008).

Data Generation and Qualitative Methods (Papers I and V)

Qualitative research is an idiographic investigation focused on exploring and understanding the unique meaning individuals or groups of individuals attribute to a social or human phenomenon (Creswell, 2013). Positioned within the interpretative paradigm, qualitative methods often honor inquiry driven by inductive approaches, targeting situated complexity, and meaning-making in natural settings, as well as utilizing a reciprocal and emergent relation to theory (Creswell, 2013). Critical realism supports this interpretative epistemology even though the stance proposes the existence of real entities. Several analytical methods may serve the purpose of critical realism

Methods

(Creswell, 2013). However, as the thesis comprises both explorative and explanatory purposes, we applied thematic analysis, as it is a flexible (i.e., inductive or deductive versions, hierarchical or narrative structures) and straightforward form of qualitative data analysis appropriate within several philosophical and epistemological positions, such as critical realism (Braun & Clarke, 2006, 2014).

Semi-Structured Interviews

The qualitative data in Studies 1 (Paper I) and 4 (Paper V) were attained through semi-structured interviews (Creswell, 2013). Semi-structured interviews are a flexible technique for small-scale research, in which a general structure is decided in advance based on the themes to be covered and the main questions to be asked. In turn, this structure is left to be improvised within during the interview, and the person being interviewed has a fair degree of freedom in what to talk about, how much to say, and how to express it (Drever, 1995). In the interview guide underpinning the two qualitative studies, we structured the interviews by first asking open-ended questions within each theme to tap more freely into the participants' lived experiences (Fereday & Muir-Cochrane, 2006). Additionally, we asked follow-up questions, as well as spontaneous questions within each theme, in an attempt to dig deeper into the core experiences and reflections that appeared during the interviews. We mainly followed the motivational process model (see Appendices 3 and 6) when developing the interview guides (i.e., motivational mentality, motivational conditions, person-environments interactions, motivational processes, and motivational implications).

The two semi-structured interviews related differently to theory. In Study 1 (Paper I), due to its exploratory purpose, we used an inductive and open approach by applying a range of motivational theories (i.e. achievement goal theory, SDT, flow, passion, and perfectionism) in constructing the interview guide. Each theory was then reconsidered during the analysis. Eventually, SDT coupled with aspects of perfectionism emerged as the most relevant theory informing Paper I, and, in turn, the conceptual decisions regarding the next study. In Study 4 (Paper V), due to the explanatory purpose, we used a deductive approach driven by the tenets of SDT to approach the underlying motivational processes of the identified exposed performers from Study 2 (Paper II), and to explore associated relationships derived in the quantitative analyses of Studies 2 and 3 (Papers II, III, and IV). The interview guide was then concentrated on relevant aspects linked to the SDT motivational process model.

Thematic Analysis

Thematic analysis is a broad category of research methods that seek to identify, analyze, organize, describe, and report themes found within a qualitative data set (Braun & Clarke, 2006;

Methods

Brooks, McCluskey, Turley, & King, 2015; Fereday & Muir-Cochrane, 2006). It is a highly flexible method that can be modified for the purpose of diverse studies, as it is not linked to a specific philosophical or methodological approach (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006). As visualized in Figure 6, we utilized different approaches, and in Study 1 (Paper I), we used an inductive thematic approach inspired by the steps proposed by Braun and Clark (2006). In Study 4 (Paper V), we used a deductive approach and the method and steps proposed of template analysis (Brooks et al., 2015). As thematic analysis is a strategy that usually focuses on what is told in the stories across the accounts (i.e., content focus), it might be important to also examine the holistic contextualization of the stories, illuminating the situated and interactive nature of real-life phenomena (Smith & Sparkes, 2012). Hence, the narrative approach is messier and seeks not only for overall themes across all cases, but keeps the stories intact for interpretative purposes also from the case (Smith & Sparkes, 2012). Hence, the researcher seeks themes, typologies, and/or instances of categories across and within the narratives of an individual or a group of individuals with similar characterizations (Smith & Sparkes, 2009).

To get rich data better suited to answering the research questions, we combined the thematic content analysis with the narrative holistic approach (Smith & Sparkes, 2012). Specifically, we developed individual narratives of each performer's story of becoming an elite performer, focusing on how the stories were embedded in time, place, and social context (Smith & Sparkes, 2009). In paper I, the presentation of the data is in line with the hierarchical thematic structure, though allowing the narratives to color and give life to the themes, thus contributing with nuances, diversity, and controversies within the themes. In Paper V, the narrative approach was more in the foreground, focusing on how different typologies and cases related differently to the identified themes and categories. The thematic template moved in the background as an overall overview, and the paper is structured around typologies of different ways of negotiating maladaptive motivational processes. We refer to Papers I and V for further specific details of each procedure and analytical steps made in the two studies.

Methods

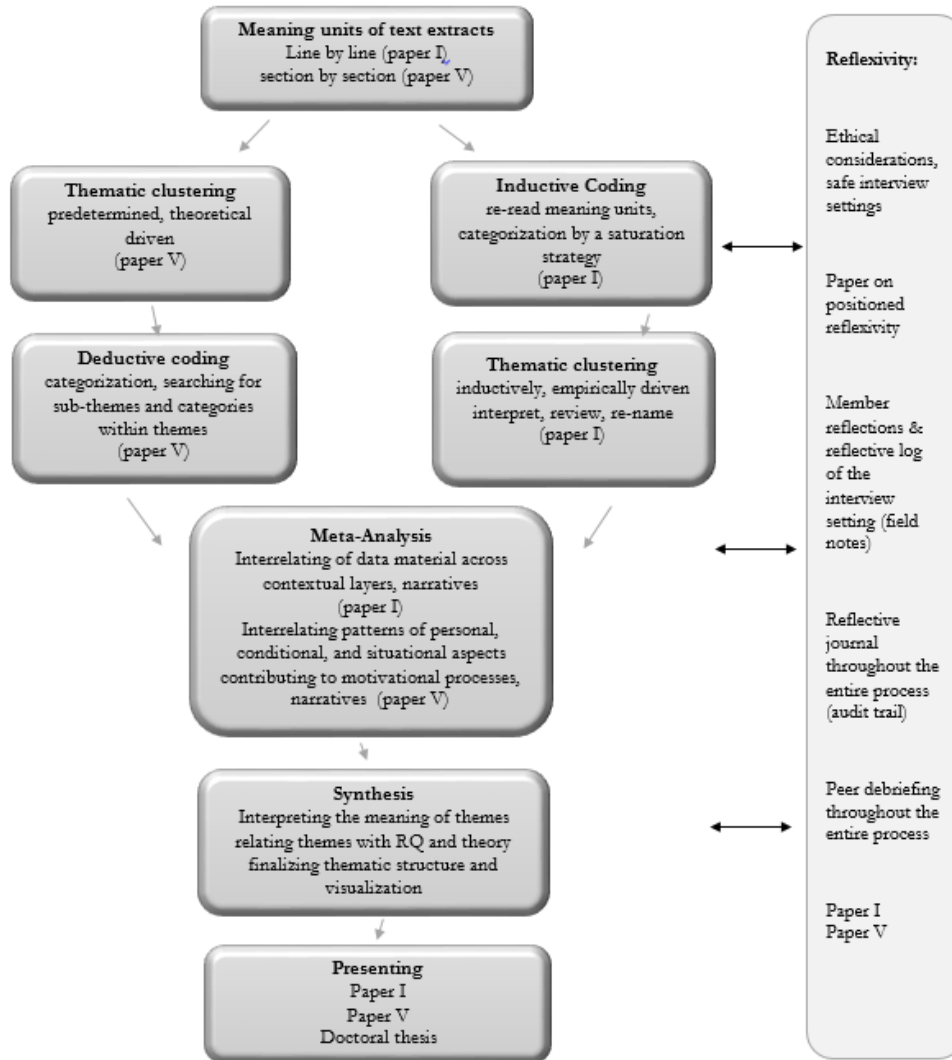


Figure 6. The two different data analytical approaches for Papers I and V within qualitative thematic analysis.

Rigor and Quality (Papers I and V)

In qualitative research, underpinned by scientific paradigms, different practices and justifications exist concerning quality, how to consider rigor, and toward the concepts and role of universal quality criteria (Creswell & Miller, 2000; Hammersley, 2007; Smith & McGannon, 2017).

Methods

Acknowledging recent discussions regarding rigor and quality in qualitative research, criteria in the present doctoral work are not seen as standards and rules, but as values that influence the judgment process (Smith & McGannon, 2017). In this doctoral thesis, four aspects of quality have been employed as useful guidelines: (a) trustworthiness, (b) reflexivity, (c) coherence, and (d) ethical responsibility (which is already outlined above; Finlay, 2002a; Nowell, Norris, White, & Moules, 2017; Smith & McGannon, 2017).

Trustworthiness

Trustworthiness is an overall concept addressing validity issues within qualitative research (Hammersley, 2007; Shenton, 2004). It is a way of demonstrating that research findings are reasonable and worthy of attention, and consist today of a range of suggested strategies (Creswell, 2013). If readers are not clear about how researchers analyzed their data or what assumptions informed their analysis, evaluating the trustworthiness of the research process is difficult. Therefore, transparency through rich descriptions of procedures and underpinning rationales of ongoing choices are crucial. In the present thesis, we invested in planning and administration, keeping field notes and records of the raw data (i.e., transcripts), as well as active use of reflexive journals. Moreover, peer debriefing in all phases (i.e., planning, data collection, analysis, and reporting) with supervisors and co-authors was also a tool extensively used to nurture the process of transparency and rich descriptions. Authenticity, another strategy underpinning trustworthiness, reflects congruence with reality and focuses on the ability of the researcher(s) to recognize, interpret, and represent the participants' accounts (Nowell et al., 2017). The doctoral candidate's own long-term lived experience from the studied phenomena have been an important advantage in addressing authenticity, such as by enhancing contextualization of the participants' experiences, familiarization of implicit culture and language use, and the ability to ask important follow-up questions. This is likely to contribute to access to deeper layers of the participants' experiences, in capturing more nuances in the retold stories, and in detecting the "unsaid" (implicit) aspects of the performers' accounts. Additionally, the attempts to safeguard the participants' anonymity, trust, and honesty as outlined above, as well as the use of extensive exemplifying quotes in the results sections of Papers I and V, were strategies applied to increase authenticity (Nowell et al., 2017; Shenton, 2004).

Reflexivity

In reflexivity, which attempts to meet the challenge of representation, the subjective and co-constituted contributions of the researcher are intertwined with knowledge construction (Finlay, 2002a; Kuehner et al., 2016). Reflective research practice is important in order to acknowledge and make transparent the researcher's positionality and subjectivity, not in order to bracket or remove

Methods

the researcher's representativeness (Fereday & Muir-Cochrane, 2006). As part of a methodological course, the doctoral candidate attended a symposium on situated reflexivity at the European Congress of Qualitative Inquiry in Leuven (2017), with a paper-presentation on positioned reflexivity related to the thesis. This was in the early stage of analyzing the qualitative data of Paper I and helped in the process of monitoring, coping with, and making transparent how the candidate's role as a researcher was interacting with the different interwoven cultural contexts that the studied fields represented (Berger, 2015). The relationships were characterized as (a) a closed relationship from within (ballet), (b) a semi-closed relationship from somewhat inside and outside (music), and (c) a distanced relationship from somewhat outside (sports).

The candidate's positionality affected the research process in different ways. First was in access to the fields and the recruitment process. While easily recruiting participants from the arts, access to the athletes was more difficult. Second, the positionality probably affected the social authority and the power distribution in the interviews. In turn, this was likely to influence body language; the way the doctoral candidate in the interviews addressed, listened to, and confronted the participants in the dialogue; and how the participants responded, weighted the interviewer's opinions, and their respondent bias (Berger, 2015). Consequently, member reflections were used and embedded in a reflective log (field notes) of the interview setting (i.e., communication flow, power distribution, emotional moods) in order to monitor and reflect on the intersubjective nature of the interviews. Finally, the situated positionality might have influenced the process of interpretation and analysis of the data, such as in the merging of the researcher's own lived experience and views with the participants' views, in the capability to unfold the participants' explicit and implicit experience, and in the ability to contextualize the data within the bigger picture.

To address these issues and deal with the positionality, two main strategies were applied. First, the researcher kept an overall reflective journal that logged all reflections (i.e., on the topic, the findings, the settings, the method, things that were surprising, things to investigate further, and things to peer debrief). This journal became a very helpful tool of reflexivity. In turn, it nurtured dealing with dilemmas and challenges more actively and enhanced the ability to report on it as well. Second, extensive use of peer debriefing, as outlined above, including all phases and different types of material, was used to enhance the quality of reflexivity.

Coherence

Coherence in qualitative research reflects alignment of the decisions made in the research process related to ontology and epistemology (Smith & McGannon, 2017). Coherence is a challenging aspect in this doctoral thesis due to the MMR design. Coherence is linked to proposed

Methods

knowledge claims (Smith & McGannon, 2017; Sparkes & Smith, 2009) and reflects how the interpretations and results are justified and presented. Elements considered might be the provision of contextualized information, plausibility, the representativeness of different perspectives, novelty, contribution to the literature, applied relevance, or ethics (Smith & McGannon, 2017; Sparkes & Smith, 2009). Coherence justified in the present doctoral thesis is prolonged engagement (i.e., 24 months of data collection, 24 months of data analysis), lived experiences from and access to performing arts TDEs, ethical considerations and approval, extensive use of reflexivity, peer debriefing discussions, and collaboration with the applied fields (i.e., meetings, lectures, seminars, and teacher/coach workshops).

Data Generation and Quantitative Methods (Papers II, III, and IV)

Measures (Papers II, III, and IV)

All measurements are based on validated questionnaires that are translated and contextualized to the TD specific setting (see Appendices 4 and 5). To translate the measurements, the doctoral candidate translated the questionnaires to Norwegian, and the assistant supervisor performed a back-translation. Next, an adjusted final version was developed after peer debriefing on the disparities. The contextualization was executed by instructional information, “tagging” in front of each item section, and contextualized adaptation at the item level where it was natural to do so (Madigan & Stoeber, 2016). We then tested a pilot version of the questionnaire on two former TD elite junior performers who gave feedback on the given use of language, contextualization, and instructions, before administering the survey to the participants.

Perfectionism (Papers II, III, and IV)

The F-MPS, 20 items from 3 sub-scales, was used (Frost, Marten, Lahart, & Rosenblate, 1990). The subscale of personal standards (seven items; e.g., “In my activity, I set higher standards than most people”) assessed PS. PC were measured with the subscales of concern over mistakes (nine items; e.g., “If I fail in my activity, I feel like a failure as a person”) and doubts about actions (four items; e.g., “It takes me a long time to do something right”). A seven-point Likert scale from 1 (totally disagree) to 7 (totally agree) was used. The F-MPS has been used in numerous studies and has shown acceptable reliability and validity, especially in contextualized versions on dancers (Madigan & Stoeber, 2016; Nordin-Bates et al., 2017; Quedsted, 2014).

Authenticity (Paper IV)

To identify aspects of inauthenticity dispositions, we used a version of the Authentic Personality Scale (APS; Wood et al., 2008). Eight items from the two subscales that indicate inauthenticity were used: self-alienation (four items; e.g., “I feel as I don’t know myself very well”)

Methods

and accepting external influence (four items; e.g., “I am strongly influenced by the opinions of others”). Participants answered on a seven-point Likert scale from 1 (totally disagree) to 7 (totally agree). Initial validation supported the internal consistency and factor structure of the scale (Wood et al., 2008).

Controlling Conditions (Paper II)

The Perceived Controlling Style Scale (Halvari, Halvari, Bjørnebekk, & Deci, 2012) was used (six items; e.g., “I experience that my teacher/coach is making all the decisions”). Responses were made on a five-point Likert scale from 1 (totally disagree) to 5 (totally agree). The initial validation study supported the internal consistency and factor structure of the scale (Halvari et al., 2012).

Basic Psychological Needs Frustration (Papers II and III)

The Basic Psychological Needs Satisfaction and Frustration Scale (Chen et al., 2015) was adapted to measure needs frustration. Four items captured needs frustration for each competence (e.g., “I feel insecure regarding my ability to master my activity”), autonomy (e.g., “Most of the things I do feel like ‘I have to’”), and relatedness (e.g., “I feel the relationships I have are just superficial”). The subscales were measured on a seven-point Likert scale from 1 (totally disagree) to 7 (totally agree). This scale has been validated and assessed across contexts and cultures (Chen et al., 2015).

Controlled Motivation (Papers II, III, and IV)

The Behavioral Regulations in Sport Questionnaire (BRSQ; Lonsdale, Hodge, & Rose, 2008) subscales of introjected regulation (four items; e.g., “I would feel ashamed if I quit”) and external regulation (e.g., “I feel pressure from other people to participate in my activity”) were used to measure controlled motivation. The responses were made on a seven-point Likert scale from 1 (totally disagree) to 7 (totally agree). The instrument has been developed and shown to be valid in sport contexts, as well as in performing arts contexts (Hancox et al., 2015).

Performance Anxiety (Papers II, III, and IV)

In Study 2, we used the Mental Readiness Form (MRF-3; e.g., Krane, 1994), which assesses performance anxiety related to competitive situations (i.e., competition or stage performance). This is a short form of only three items, designed and validated (Cox & Russell, 1999) to correspond with subscales of cognitive anxiety, somatic anxiety, and self-confidence from the Competitive State Anxiety Inventory (Martens et al., 1990). Responses were made on a scale ranging from 1–100% of anxiety arousal (divided by 10 in the analyses) to assess the participants’ experienced anxiety levels. In Study 3, we used the Sport Anxiety Scale (SAS-N; Smith, Smoll, & Schutz, 1990)

Methods

to measure anxiety in performance settings. We used seven items from the sub-dimension of worry (e.g., “I am concerned about choking under pressure”), as perfectionism seemed to relate most strongly to cognitive anxiety aspects (Miller & Chesky, 2004; Walker & Nordin-Bates, 2010). The scale, and especially the subscale of the worry dimension, has confirmed support (Smith et al., 1990) from the Norwegian contextualized version (Abrahamsen, Roberts, & Pensgaard, 2006). The answers range from 1 (never) to 5 (each time) on a five-point Likert scale.

Exhaustion (Paper IV)

The subscale of exhaustion (six items; e.g., “I feel burned out because of my activity”) from the Maslach Burnout Inventory (MBI; Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1986) was used to identify indications of mental and physical exhaustion. The exhaustion dimension was prioritized, as it has been highlighted as the core and most important sub-dimension of burnout (Gustafsson et al., 2016), and the MBI has shown acceptable internal consistency in sports contexts in Norway (Bentzen, Lemyre, & Kenttä, 2017). Responses were made on a five-point scale that reflected 1 (never), 2 (sometimes), 3 (regularly), 4 (often), and 5 (daily).

Perceived Performance Level (Paper III)

The perceived performance level measure was developed by the candidate. The elite junior performers were asked to rate their perceived performance level relative to their age group in their activity on a scale between 1 (at the lowest performance level) and 5 (at the highest performance level). They were told to use national rankings (athletes), grades, and assessments from teachers/coaches (art performers) to assist their assessments.

Data Analyses

Structural Equation Modelling

SEM is an analytical approach that allows researchers to build theoretically driven process models and empirically test consistency with observed data (Little, 2013). SEM is based on general linear modeling (GLM) and combines CFA with regression analysis. Key assets of SEM include the distinction between observed and latent variables, provision of model fit indices, bootstrap CI, and strategies for dealing with missing values (Lang & Little, 2018; Little, 2013). Even though SEM estimates both manifested and latent factors, SEM is often preferred due to the advantage of a latent-variable approach. In the latent approach, a set of observable variables are used as indicators to represent and estimate the scores on an underlying operationalized construct (e.g., PC). An observable variable comprises both targeted explained variance and error (disturbance) produced by either random unreliability or unexplained variance. The error causes interference and might lead to biased estimates through influencing the correlations (decreasing), regression coefficients (decreasing), and the standard error (increasing), which, in turn, makes interpretation more

Methods

challenging (Hjorth, 2017; Little, 2013). Hence, the use of latent variables that sort out the error from the manifest indicator and estimate only explained variance through the latent variable is clearly advantageous (Little, 2013).

The first step in SEM is to establish the measurement model. This is done by CFA testing of the underlying quality of the measurement properties, the expected relationships between indicators, and latent variables (Brown, 2014; Little, 2013). The CFA is assessed with a goodness of fit evaluation. As suggested by previous research, though highly debated (e.g., Hu & Bentler, 1999; Little, 2013; Marsh, Hau, & Wen, 2004), a good model fit is indicated by a chi-square non-significant p -value (> 0.05). As the chi-square test can be sensitive to sample size, the relative chi-square ($\chi^2/df < 2$) is a robust supplemental test (Marsh et al., 2004). To evaluate additional fit indices, conventional criteria with a combination of incremental (the comparative fit index (CFI)) and absolute (the root mean square error of approximation (RMSEA) and standardized root mean square (SRMR)) fit indices are applied. Fits are normally deemed acceptable if RMSEA and SRMR values are close to or lower than 0.08, accompanied by a CFI value close to or higher than 0.90 (Kline, 2015; Little, 2013; Marsh et al., 2004). If the CFA can confirm the quality of each factor and the overall measurement model of all included factors, then a full model (i.e., conditional process modeling or growth mixture modeling) can be estimated and tested. In Study 2 (Paper II), we used a variable-based moderated mediation approach. Conversely, in Study 3 (Papers III and IV), we used person-centered analytical approaches and utilized first longitudinal growth mixture modeling (GMM) and next prospective latent profile analysis (LPA). Each analytical approach is elaborated upon below after some reflections on statistical power that influence all statistical analyses.

Statistical Power

A challenge with more complex and advanced statistical methods, which is estimated in software programs such as *Mplus*, is the need for a relatively large sample size to satisfy the assumptions and needs of the estimator (Little, 2013; VanVoorhis & Morgan, 2007). Statistical power refers to the probability of rejecting a false null hypothesis and concerns the likelihood of making Type I (rejecting a true null hypothesis) or Type II (failing to reject a false null hypothesis) errors (VanVoorhis & Morgan, 2007). Statistical analysis is about probability, and the larger the sample size (N), the more normally distributed and accurately obtained estimates. Power influences the confidence curves of the magnitude of mean, standard deviation, variance, and covariance (Little, 2013). Hence, low power might provide more biased estimates that increase the likelihood of making a Type II error. Conversely, as the ability to detect small effect sizes is dependent on

Methods

power, low power might influence the likelihood of detecting fine-grained and small effects, increasing the chance of making a Type I error (Little, 2013; VanVoorhis & Morgan, 2007).

Balancing a homogenous sample (representative of the targeted population) to get a necessary sample size might be challenging, especially within the present doctoral thesis, which targeted the top 20% of elite junior performers in the small country of Norway. The sample strategy challenged the sample size and, thus, the statistical power. On the other hand, we did recruit the exclusive and unique population we wanted to study and gained a high overall attendance rate (70–80%), making the results more conceptually reliable, interpretable, and of highly applied relevance. Nevertheless, we did a-priori power calculations (Soper, 2019) and attained several approaches to ensure sufficient power in Studies 2 and 3 (Cohen, 1992; Cohen, Cohen, West, & Aiken, 2013). First, we tried to decrease the error rate by ensuring high reliability and validity (precision of measures), as well as using latent variables in Study 3 (Paper IV; Little, 2013). Second, we aimed for parsimony and sound, theoretically driven models, keeping the estimates strongly related, but at a minimum. As smaller samples sizes often might be non-normally distributed, the MLR estimator (maximum likelihood robust) and 10,000 bootstraps that provide bias-corrected CI were used in *Mplus*. Finally, the given results of model fit indices offered confirmation of model quality.

Conditional Process Modeling (Paper II)

In psychology, where scientists study individuals operating in real-life contexts, the examination of why effects occur, or under which conditions they do, are often key research questions (Hayes, 2017; Hayes, Montoya, & Rockwood, 2017). Hence, to examine if controlling conditions and basic needs frustration would function as explanatory mechanisms of why PC are associated with maladaptive motivational processes in Study 2 (Paper II), we applied conditional process analysis to test if the size or strength of the intervening variable (i.e., basic needs frustration) was conditional on the level of the moderator (controlling conditions). To reduce complexity and increase power, we estimated the model containing only one intervening and outcome variable at a time (VanVoorhis & Morgan, 2007). Moreover, we used manifested variables instead of latent variables, so as to (a) ensure sufficient power, (b) follow recommendations of using manifest and mean-centered variables to estimate interaction, and (c) get beta coefficients to probe and visualize the interactions (Hayes et al., 2017). The index of moderated mediation was calculated on the mean and one standard deviation above and below the mean value. Given a significant index, the Johnson-Neyman t-tests technique was additionally used to examine the precise range of moderator values that were significant (Hayes, 2017). In line with outlined recommendations (Hayes, 2017), the bias-corrected CI was used to make inferences about the indirect effects of the intervening variable. The bootstrap technique involves generating a number of resamples that

Methods

estimate the intervening (indirect) effect. The distribution of all these estimates is then bias-corrected and examined. If the lower and upper bounds based on the 95% percentile do not contain 0, a significant indirect effect is obtained (Hayes, 2017).

Person-Centered Analytical Approaches with Longitudinal Data (Papers III and IV)

The concept of change included in longitudinal data, is often studied using variable-based analysis, in which the mean values of independent characteristics (e.g., perfectionism dimension) on a group level are associated with the mean values of various outcomes (e.g., performance anxiety (Bergman & Andersson, 2015)). In recent years, person-centered analytical approaches have gained increased interest (Bergman & Andersson, 2015). This type of analysis enables researchers to focus on similarities and differences among people instead of on relationships between mean values of variables. Additionally, person-centered analyses are flexible and provide investigation of both inter- and intra-individual variability (Berlin, Williams, & Parra, 2014). The primary goal is to identify homogenous subgroups (i.e., profiles or growth curves) of individuals in a population that possess a unique set of characteristics (i.e., perfectionism and inauthenticity) or development patterns (i.e., growth curves of needs frustration). Moreover, these analyses also allow scholars to study predictors and outcomes of profiles or growth curves over time (Berlin et al., 2013). Hence, person-centered approaches represent a fruitful alternative to the correlational approach (Bergman & Andersson, 2015; Morin & Wang, 2016).

Person-centered analytical approaches within the SEM umbrella, such as the GMM and LPA, are model-based, probabilistic, and data-driven analytical approaches that have gained increased popularity in psychological research (Marsh, Lüdtke, Trautwein, & Morin, 2009; Morin & Wang, 2016). These analyses are flexible and robust, and they can specify a variety of models that include different distributional variables, scale types, predictors, and outcomes (Asparouhov & Muthén, 2014; Berlin et al., 2013; Berlin et al., 2014). More, these models have some noticeable advantages compared to the more traditional analyses (Berlin et al., 2014). First, GMM and LPA are model-based and data-driven methods that allow for fewer arbitrary decisions regarding class definitions, as several fit indices and statistical tests advise the profile solution (Bergman & Andersson, 2015; Berlin et al., 2014). Second, as GMM and LPA allow the inclusion of a variety of indicator and outcome variables, they are more flexible approaches (Morin & Wang, 2016). Finally, GMM and LPA are probability techniques, which have proved to be superior in several simulation studies (Berlin et al., 2013; Berlin et al., 2014; Tein, Coxe, & Cham, 2013).

Due to the different aims and research questions, we used both GMM (Paper III) and LPA (Paper IV) to analyze the longitudinal data of Study 3. Even though the two analytical approaches

Methods

differ slightly in the modeling strategy (i.e., growth curves vs. profiles),¹ they share many similarities in the statistical approaches. In both these analytical approaches, subgroups, based on either latent profiles or growth curves, are identified based on patterns of answers on the different questionnaires (i.e., perfectionism, inauthenticity, and basic needs frustration). Participants are then classified to the profile or growth curve, respectively, in which they have the highest probability to belong (Nylund, Asparouhov, & Muthén, 2007). The analyses provide several different statistical fit indices to guide the decision about the best model solution (Nylund et al., 2007). Deciding on the number of classes or growth curves can be difficult, and one needs to consider the research aims, fit indices, substantive meaning of each solution, parsimony, and theoretical assumptions (Berlin et al., 2014). A rule of thumb is that proportionally $> 1.0\%$ and/or numerically $n > 25$ of members are recommended due to statistical power (Berlin et al., 2014). Statistical power in the GMM and LPA analyses depend not only on sample size ($N > 100$ minimum), but also on the size of the distance between the indicators, the number of indicators (> 5), the quality of indicators (i.e., entropy), and the estimates of fit indices (Tein et al., 2013; Wurpts & Geiser, 2014). To test if the growth curves or identified latent profiles are predicted by or differ in a range of outcome variables at Time 3, we used a three-step approach (Asparouhov & Muthén, 2014). The three-step approach is based on an overall test of associations using Wald's test, supplemented by pairwise group comparison (Asparouhov and Muthén, 2014).

Missing Data

A common challenge with longitudinal SEM analysis is missing data (Little, 2013). Missing data are likely to produce biased estimates if not handled properly (Lang & Little, 2018; Tabachnick & Fidell, 2007). In Study 3, 138 (53%) responded on all 3 time points, 74 (28%) on 2 time points (17% Times 1 and 2; 6% on Times 2 and 3; 6% on Times 1 and 3), and 49 (19%) on only one time point (8% on Time 1; 4% on Time 2; 7% on Time 3). Hence, the missing data ranged between 16.7–18.3% (Time 1), 18.3–22.0% (Time 2), and 28.4–32.3% (Time 3). To decide if the omitted data were missing at random, we performed Little's missing completely at random (MCAR) test and an additional t-test with bootstrapping to assess whether the results differed between participants who completed all three time points and those who did not (Lang & Little, 2018). When missing at random (MAR) is established, the use of the full information maximum likelihood (FIML) technique is found to be a robust method to recover the missing data with no biased estimates (Lang & Little, 2018; Little, 2013).

¹ For details of each GMM and LPA analysis, see Papers III and IV.

Results

Paper I

Thriving, Striving, or Just Surviving? Learning Conditions, Motivational Processes, and Well-being among Norwegian Elite Performers in Music, Ballet, and Sport

Haraldsen, H. M., Nordin-Bates, S.M., Abrahamsen, F. E., & Halvari, H. (accepted 24.05.2019). *Roeper Review*.

Background and Aim: This study explored the motivational experiences of successful elite performers from sports and the arts with experiences from diverse prestigious Norwegian talent development schools. The aim was to investigate the relationships between conditions, motivational characteristics, and implications among youth performers operating within Norwegian TDEs.

Research Question: In what ways did elite performers in classical music, ballet, and sports experience and characterize their TD learning conditions, and how did these experiences relate to the performers' motivational processes and well-being?

Design: A retrospective exploratory interview study.

Methods: Participants were nine ($M_{age} = 32$) purposefully selected performers from ballet, classical music, and sports. The data were collected with semi-structured interviews, and the analysis utilized inductive thematic analysis accompanied by narrative analysis.

Results and Discussion: The results showed that the performers navigated within and between several contextual layers. The thematic analysis identified a national egalitarian layer, characterized as exclusive, student-centered, and of close relationships, nurturing of performers' need for relatedness. The elite TD layer was considered to provide high-quality and professionalized deliberate practice, boosting the performers' competence development. This layer was also perceived as being performance-oriented (i.e., high expectations, demands, and favoring the best). Thus, the findings suggested that performers' need for competence was especially at stake, as it functioned as cultural capital that affected social status and development outlooks. The elite TD layer was predominantly rigid and controlling (i.e., authoritarian, asymmetric power, and teachers/coaches as gatekeepers), seemingly diminishing the performers' self-determined functioning. In the domain-specific layer were artistic processes identified to satisfy both needs for autonomy and competence, as they were perceived as deeply meaningful and thriving, used as a

Results

coping strategy, and a gateway to flow.

A central finding was that the negotiation between these layers provided contradictory and multifaceted motivational experiences. Consequently, the performers experienced both autonomy-supportive and controlling conditions alongside basic needs satisfaction and frustration. Overall, the performers' motivational profiles ranged between being predominantly self-determined, via multifaceted, to predominantly controlled. In contrast to how elite performers have sometimes been described in the literature, many of the performers in the present study lacked an original intrinsic motivation, and only two performers expressed a predominantly autonomous motivation throughout their careers to date.

The results of the individual layer indicated that the performers' motivational profiles mattered, as their blends of motivation (i.e., intrinsic, extrinsic, and amotivation) were associated with more or less robust and healthy TD pathways. Performers regulated by self-determined motivation reported engaging in their performance development in a more joyful, robust, and healthy way (i.e., self-realization, flow, self-esteem, and vitality), showing less dependence on their given TD learning conditions. In contrast, performers regulated by controlled motivation reported higher vulnerability, and in turn, more ill-being (i.e., low self-esteem, perfectionism, obsessiveness, anxiety, negative affect, and exhaustion).

Limitations: The retrospective nature of the study, the small sample, and the focus on solely performers' lived experiences (i.e., not triangulated with observations or leaders' perspective) are limitations to note.

Conclusion: The findings demonstrated the innate complexity in developing excellence. The interaction between conditions (where you are) and personal characteristics (who you are) affected the performers' motivation and psychological functioning (thriving, striving, and/or surviving) in different ways. The results supported the tenets of SDT, that quality of motivation matters. Performers regulated by autonomous motivation reported being more psychologically robust and less dependent on the given conditions, alongside experiencing a wider range of thriving than performers being predominantly controlled.

Paper II

The Role of Perfectionism and Controlling Conditions in Norwegian Elite Junior Performers' Motivational Processes

Haraldsen, H. M., Halvari, H., Solstad, B. E., Abrahamsen, F. E., & Nordin-Bates, S.M. (2019). *Frontiers in Psychology*. doi.10.3389/fpsyg.2019.01366

Background and Aim: The purpose of the current study aimed to test the roles of controlling conditions and basic needs frustration as explanatory mechanisms and investigate if controlling conditions would function as a negative moderator for the indirect relationship between perfectionistic concerns and (a) introjected motivation, (b) external motivation, and (c) performance anxiety via basic needs frustration.

Research Hypotheses: (1) PC are positively related to controlling conditions, needs frustration, introjected motivation, external motivation, and performance anxiety. (2) Controlling conditions will moderate the relationship between PC and frustration of the needs for autonomy, competence, and relatedness, in such a manner that these relationships will be positive and stronger among those who report higher levels of controlling teaching/coaching conditions. (3) The indirect associations between perfectionistic concerns and (a) introjected motivation, (b) external motivation, and (c) performance anxiety via the frustration of autonomy, competence, and relatedness will be more evident among those who report higher levels of controlling teaching/coaching conditions.

Research Design: A descriptive cross-sectional study.

Methods: Participants were 171 ($M_{age} = 17.3$; $SD_{age} = 0.94$) purposefully selected Norwegian elite junior performers from talent development schools from sports and the arts, who completed an online questionnaire to report their perceptions of the study variables. Associations in the moderated mediation analysis were examined using SEM with manifest variables after initial analyses of missing data, CFA, alpha reliability, descriptive statistics, and bivariate correlations.

Results and Discussion: An overall confirmatory factor analysis of all the study variables showed acceptable fit ($\chi^2(565) = 860.13$, $p = 0.00$, $\chi^2/df = 1.5$, CFI = 0.90, SRMR = 0.06, RMSEA = 0.06 [90% CI, 0.05–0.06]). The reliability estimates ranged from $\Omega = 0.75$ to 0.88.

Supporting hypothesis 1, the bivariate correlations showed that PC were positively and strongly associated with perceptions of controlling teaching/coaching style, the frustration of basic psychological needs, controlled motivation, and performance anxiety.

Furthermore, the moderation results partially supported hypothesis 2, as it was tested and found support for controlling conditions as a positive moderator of the relationship between PC and

Results

competence need frustration (PC $\beta = 0.53, p = 0.00$; control $\beta = 0.55, p = 0.00$; PC*control $\beta = 0.29, p = 0.01$; $R^2 = 0.45$). There were no significant interactions in the models of autonomy need frustration and relatedness need frustration. Thus, the need for competence turned out to be the key psychological need in the current sample of elite junior performers, adding nuances to the literature.

The complete moderated mediation models with competence need frustration as an intervening variable provided every good fit index with non-significant chi-square values in all three models. The effect sizes of explained variance of the intervening variable competence need frustration ($R^2 = 0.45$), as well as for the outcomes (a) introjected motivation ($R^2 = 0.32$), (b) external motivation ($R^2 = 0.29$), and (c) performance anxiety ($R^2 = 0.32$) were large (Fritz, Morris, & Richler, 2012). The results showed direct associations from perfectionistic concerns on introjected motivation ($\beta = 0.18, p = 0.02$) and performance anxiety ($\beta = 0.20, p = 0.03$), but not on external motivation ($\beta = 0.00, p = 0.96$). In contrast, direct associations were found from controlling conditions on external motivation ($\beta = 0.23, p = 0.003$), but not on introjected motivation ($\beta = 0.11, p = 0.158$) and performance anxiety ($\beta = 0.04, p = 0.654$). There were no significant direct interaction effects (PC*controlling conditions) associated with the three outcomes in any of the models. However, the index of the conditional indirect effects between PC and (a) introjected motivation (index = 0.29 [95% CI, 0.10, 0.57], $p = 0.01$), external motivation (index = 0.21 [95% CI, 0.07, 0.43], $p = 0.02$), and (c) performance anxiety (index = 0.26 [95% CI, 0.08, 0.56], $p = 0.03$), via competence need frustration, was significant.

These results support hypothesis 3. The indirect relationships between perfectionistic concerns and the outcomes via competence need frustration were more evident as the moderator values increased, shown by conditional indirect effects that were significant at mean and high levels (+1 *SD*) of the moderator, but not at low levels (-1 *SD*). These findings indicate that, when elite junior performers are driven by the biased mentality of PC (i.e., monitoring for critical feedback, disapproval, and imperfection), controlling conditions seem to trigger and increase the vulnerable and predisposed behavior, whereas, when faced with low controlling conditions, these tendencies seem to be immobilized.

Limitations: The cross-sectional design hampers absolute evidence of the order of variables or the stability of the indirect associations tested. Another limitation originates from the sole reliance on self-report data, which may be a threat to validity.

Conclusion: The results indicated that displaying high levels of PC might expose elite junior

Results

performers to higher risks of experiencing debilitating motivational processes. Specifically, they appear more likely to develop controlled motivation and experience performance anxiety through competence need frustration. The linking of the perfectionism characteristic with SDT tenets both corroborated and extended previous perfectionism research.

Paper III

An Examination of Change in Basic Needs Frustration and Performance Outcomes among Elite Junior Performers

Haraldsen, H. M., Solstad, B. E., Ivarsson, A., Halvari, H., & Abrahamsen, F. E., (re-submitted). *Scandinavian Journal of Medicine & Science in Sport*.

Background and Aim: The purpose of the current study was to extend previous research in elite performance settings regarding the role of perfectionism sub-dimensions (i.e., concern over mistakes; COM and personal standards; PS) and basic needs frustration as determinants of elite junior performers' performance anxiety and perceived performance level.

Research Questions: (1) Can unique growth profiles of elite junior performers' basic need frustration over a period of nine months, be identified, and are there differences in COM and PS between the identified growth curve profiles at baseline? (2) Are there group differences between the identified growth curves profiles on self-reported performance anxiety and perceived performance level in the end of the period?

Research Design: A longitudinal cohort study.

Methods: Participants were 259 ($M_{\text{age}} = 17.31$; $SD_{\text{age}} = 0.97$) purposefully selected Norwegian elite junior performers from TD schools in sports and the performing arts. They completed an online questionnaire at three time points over a period of nine months, reporting their perceptions of the study variables. Associations were examined using SEM with manifest variables after we completed initial analyses of missing data, alpha reliability, CFA, measurement invariance, descriptive statistics, and bivariate correlations. Additionally, the growth profiles were identified based on an intercept factor (starting point of the curve) and a slope factor (the direction of change in time; Berlin et al., 2013).

Results and Discussion: The study had an overall response rate of 77.73%. There were some dropouts, and missing data were moderate (23.51%). The *t*-test results showed no statistically significant differences between the participants who completed the questionnaires at all time points and those who did not (Cohen's *d* ranged between 2.8 and 4.6). To handle the missing data, we used FIML in Mplus (Lang & Little, 2018; Little, 2013). An overall CFA of all the study variables in each model showed good fit to the data: (a) Autonomy frustration (CFI = 0.99, SRMR = 0.06, RMSEA = 0.03, CI 90% [0.011–0.035]), (b) competence frustration (CFI = 0.90, SRMR = 0.08, RMSEA = 0.05, CI 90% [0.046–0.0615]), and (c) relatedness frustration (CFI = 0.93, SRMR = 0.06, RMSEA = 0.04, CI 90% [0.034–0.050]). Note also that the reliability estimates ranged from

Results

$\alpha = 0.76$ to 0.91 . The initial assessment of the measurement equivalence of each of the three basic needs frustrations across the three time waves showed that the growth curve variables were invariant over time.

The GMM analysis identified two main opposite profiles in each basic need model: competence need frustration; (1) low and decreasing (61%) and (2) moderate and increasing (39%); autonomy need frustration; (1) moderate and increasing (25%) and (2) low and decreasing (75%); relatedness need frustration; (1) high and decreasing (11%) and (2) low and increasing (89%). All growth curves, except profile 1 in the model with autonomy frustration reflected a significant change factor (slope) over the period of nine months.

Furthermore, the results showed that PS were overall high, but did not differ between the growth profiles. Conversely, COM differed significantly between the different growth profiles of each basic need frustration, respectively. Higher levels of COM was associated with the most maladaptive growth profiles. Elite junior performers who experienced moderate and increasing levels of competence and autonomy frustration, reported higher levels of performance anxiety and lower levels of perceived performance level than those who reported low and decreasing perceptions. There were no significant differences between the growth profiles in frustration of relatedness.

The findings also showed that sports performers had statistically more probability to belong to the low and decreasing profiles in frustration of competence and autonomy than the performing arts performers. In terms of gender, did significantly profile differences emerge only in the model of competence frustration, showing that boys were more likely to be distributed in the low and decreasing growth profile than girls. The effect size of the significant differences were moderate to large (ranging from Cohen's $d = 0.40$ to 1.11).

Limitations: The reliance on self-report data might have validity issues due to biased interpretation and reported social desirability. Another limitation is the use of a certain instrument: Frost MPS. This scale has been criticized for unclear factor structure, and we also had to adjust the COM subscale in the current study. In addition, the sample size restricted our ability to test the GMM using latent factors.

Conclusion: The findings supported the SDT-based process model, indicating that basic needs frustration is a driving mechanism nurturing maladaptive motivational processes and debilitating performance outcomes. Moreover, internal forms of perfectionism, which are driven by conditional self-worth, seem to be an important determinant of basic needs frustration. The debilitating nature of maladaptive motivational processes might therefore be an important

Results

mechanism to note, as roughly one out of three elite junior performers was distributed in the most maladaptive growth curve profiles of competence and autonomy frustration.

Paper IV

Examining the Composites of Perfectionism and Inauthenticity in relation to Controlled Motivation, Performance Anxiety, and Exhaustion

Haraldsen, H. M., Ivarsson, A., Solstad, B. E., Abrahamsen, F. E., & Halvari, H (submitted). *European Journal of Sport Sciences*.

Background and Purpose: The aim of the current study was to explore how individual composites of perfectionism and inauthenticity, as motivational antecedents over time, are associated with a set of maladaptive performance outcomes (i.e., controlled motivation, performance anxiety, and experienced exhaustion). A second aim was to explore if inauthenticity dispositions, linked to SDT tenets, could offer explanatory power as to why perfectionism turned in maladaptive directions.

Research Questions: Can unique profiles based on elite junior performers' levels of perfectionism and inauthenticity dimensions, measured at baseline, be identified? Are there group differences between the identified profiles on self-reported introjected motivation, external motivation, performance anxiety, and experiences of exhaustion nine months later?

Research Design: A prospective cohort study.

Methods: Participants were purposefully selected elite junior performers (top 20%) from sports and the performing arts ($M_{age} = 17.31$; $SD_{age} = 0.97$). They completed an online questionnaire at two time points to report their perceptions of the study variables. The study had an overall response rate of 77%, and 219 completed at time 1 and 156 at time 2. Subgroups were identified, and associations between subgroups examined using latent profile analyses (LPA) after initial analyses of missing data, CFA, alpha reliability, descriptive statistics, and bivariate correlations were performed.

Results and Discussion: Twenty-nine percent of the participants did not complete the survey at Time 3. The *t*-test results showed no statistically significant differences between the participants who did not complete the questionnaires at Time 3 and those who did (Cohen's *d* ranged between 0.04 and 0.29). An overall CFA of all the latent study variables showed good fit ($\chi^2(989) = 1414.31$, $p = 0.00$, $\chi^2/df = 1.4$, CFI = 0.91, SRMR = 0.06, RMSEA = 0.04 [90% CI, 0.036–0.046] after some minor adjustments.

The LPA analysis identified four profiles: Profile 1 (17%), internally driven non-perfectionism; Profile 2 (13%), internally driven PS distress; Profile 3 (40%), externally driven PS doubts; and Profile 4 (30%), externally driven mixed perfectionism. The reported mean values of the predicted

Results

outcomes of controlled motivation, performance anxiety, and experienced exhaustion at Time 2 showed that there was a clear and significant distinction between Profile 4 on one hand (moderate values) and the three other profiles (low values) on the other side in all outcome variables. There were also significant, though smaller, differences between the externally driven PS doubts in Profile 3 and the internally driven non-perfectionism Profile 1 on all outcomes except performance anxiety, and between Profile 3 and the internally driven PS distress on exhaustion. The effect sizes of the significant differences were small to large (ranging from Cohen's $d = 0.32$ to 1.20). In general, the findings indicated that, the higher the scores on the socially derived PC self-worth and inauthenticity, the higher the scores on the maladaptive outcomes. Being internally driven non-perfectionistic emerged as the most adaptive profile, whereas the externally driven mixed perfectionism was the most maladaptive profile, mainly supporting the hypotheses of the 2×2 model of perfectionism (Gaudreau, 2016; Hill & Madigan, 2017).

Lastly, the findings showed that boys seem more likely than girls to be in the internally driven PS distress Profile 2 (74.1%), thereby being less exposed to maladaptive motivational processes. For domain, art performers appear less likely to be in the internally driven non-perfectionism Profile 1 (10.4%) than the two externally driven and least adaptive Profile 3 (29.2%) and Profile 4 (38.1%).

Limitations: The sole reliance on self-report data, which may be a threat to the construct validity due to biased interpretation and socially desirability responses. In addition, the concern over the mistakes sub-scale, dividing into two factors, deviated from the original Frost MPS, making interpretation more difficult.

Conclusion: The results indicated a multidimensionality of perfectionism. The externally driven elite junior performers displaying mixed perfectionism and inauthenticity reported the highest levels of maladaptive functioning. Additionally, low levels of inauthenticity indicated a function as a buffer toward the tested maladaptive performance outcomes. The findings demonstrated that a heightened vulnerability of perfectionism is associated with externally driven forms of perfectionism nurtured by conditional self-worth. The vulnerability of perfectionism might be an important maladaptive factor to notice, since almost one out of three elite junior performers was distributed in the most maladaptive externally driven mixed perfectionism profile.

Paper V

Negotiating Maladaptive Motivational Processes – How Did Elite Junior Performers from Sports and Performing Arts Experience to Strive and Survive?

Haraldsen, H. M., Abrahamsen, F. E., & Halvari, H. (submitted). *Psychology of Sport and Exercise*.

Background and Aim: The current study aimed to explore through qualitative in-depth inquiries, the multifaceted motivational processes of elite junior performers when they undergo a period of maladaptive functioning and striving.

Research Question: How do Norwegian elite junior performers perceive and experience their maladaptive motivational functioning, and how do they negotiate with their vulnerable situation?

Research Design: An explanatory interview study.

Methods: We purposefully recruited eight participants between age 16 and 18 ($M = 17.31$, $SD = 0.90$) that reported high scores on basic needs frustration in Study 2 (Paper II) and followed them during their next school year. The data were collected with semi-structured interviews, and the analysis utilized a combination of deductive template analysis and narrative analysis.

Results and Discussion: The themes that emerged during the template analysis were: (1) Talent factories aiming for the top (TDEs); (2) Who am I if I am not a successful elite junior performer? (3) Development process with three distinct narratives of (a) yes, I nailed it again, (b) just hanging in there, and (c) when the going gets tough; (4) Negotiation that consisted of the categories (a) coping, (b) mastery and success, (c) supported when needed the most, (d) positive stimuli outside the activity, (e) positive experiences (I still love my activity, despite it all), and (f) negative experiences (Sometimes, it's just so hard).

The results indicated that performers' negotiation process was situated, complex, and dynamic, determined by the interplay between the performer's motivational mentality (i.e., who you are), the conditions provided by the TDEs (i.e., where you are), and the faced situational plots (i.e., when you are). Furthermore, the mismatch between performers' vulnerable motivational mentality and the performance-oriented and controlling TDEs was clear and maladaptive, reported to increase the risks of experiencing basic needs frustration, diminished functioning, and ill-being.

The results supported the theory of SDT, as performers reporting more autonomous functioning and fewer perfectionistic tendencies showed the most adaptive and proactive coping strategies, whereas performers with diminished functioning and more prevalent perfectionistic tendencies were likely to be involved in reactivity coping. Lastly, a central finding was that, when the adversity was complex and felt massive, a successful negotiation seemed dependent on not only effective

Results

coping, but on a range of buffering factors.

Limitations: The sample size of only eight performers might be too small to give a saturated picture of diverse negotiation narratives. Furthermore, we only rely on interviews with performers (i.e., not triangulated with observations or leaders' perspectives).

Conclusion: The findings revealed that the process of becoming an elite performer is a unique and emergent process of many personal, conditional, and situational factors interacting in time and place. Furthermore, the results indicated that the performers were balancing on a knife-edge between surviving and risk of drowning. Having a vulnerable motivational mentality while operating in pressurized, competitive, and controlling TDEs reduces negotiation outlooks. Subsequently, in line with SDT tenets, the less self-determined functioning and negotiation reported, the less likely the performers were to have engaged in effective resilience and restoration processes and thrived from adversity.

Discussion

The main purpose of the present doctoral thesis is to examine individual and contextual factors associated with maladaptive motivational processes reported by Norwegian elite junior performers from sports and the performing arts, set in prestigious TDEs. The specific findings are addressed in each of the five papers. Hence, the overall discussion focuses on the two central aims that have guided the thesis and a general discussion of the interplay between factors within the motivational process model guided by SDT tenets. We will discuss each of the two overall aims in relation to theory and previous research. Next, a general discussion, applied and methodological perspectives, and conclusions are included in the end.

Aim 1

To explore the relationships between perceived TDEs and elite junior performers' maladaptive motivational processes and various motivational outcomes (Papers I, II, and V).

Main findings:

- Norwegian TDEs are multifaceted and diverse, providing both autonomy-supportive and controlling conditions interchangeably (Papers I and V).
- Norwegian TDEs are exclusive, professionalized, and highly performance-oriented (Papers I and V).
- The core currency in the Norwegian TDEs is competence (Papers I, II, and V).
- Controlling conditions are common across the domains (sports and the performing arts) and mainly of indirect nature based on conditional regard (Papers I and V).
- Controlling conditions moderate the indirect relationship between perfectionistic concerns and (a) controlled motivation and (b) performance anxiety via competence need frustration in mean and high levels of controlling conditions (Paper II).
- The Norwegian TDEs play an important role in elite junior performers' overall quality of motivational experiences influencing their maladaptive motivational processes, their performance development, and psychological ill-being (Papers I, II, and V).

The qualitative findings (Paper I and V) showed that the Norwegian TDEs were multifaceted and diverse, facilitating both autonomy-supportive (i.e., student-centered and close

Discussion

relationships) and controlling conditions (i.e., controlling teaching/coaching style, conditional regard, favoring the best). As such, they provided diverse and sometimes contradictory learning conditions for the elite junior performers. More specifically, they were demonstrated to be highly performance-oriented and competitive. When the aim of educating elite performers became at stake, reaching excellence seemed to outbalance the autonomy-supportive aspects, revealing aspects of unstable and contingent motivational conditions. Perceiving conditions as uncontrollable was found to be negatively associated with performers' autonomous functioning and malfunctioning (e.g., stress, controlled motivation, avoidance-coping, performance anxiety, and exhaustion; Lazarus, 2000; Li, Wang, & Kee, 2013; Vansteenkiste & Ryan, 2013).

In line with the performance orientation, competence was identified to be the core currency in the TDEs, which, in turn, affected social status and future outlooks for the elite junior performers. This aligns with a similar study of Norwegian TDEs in music (Stabell, 2018). The need for competence seemed especially at stake within these TDEs, pushing the competence evaluation in other-oriented directions and out of line with the favorable innate and growth-seeking competence development proposed by SDT (Elliot, McGregor, & Thrash, 2002). Such competence evaluation that requires demonstrating ability normatively to others or avoiding demonstrating inability has been shown to foster competence need frustration (Elliot et al., 2002; Vansteenkiste & Ryan, 2013). The interview data in Studies 1 and 4 (Papers I and V) demonstrated that all the elite junior performers reported elements of stress, fear of failure, and pressure related to the performance-orientated TDEs.

The findings also indicated that the competence level was related to the need for autonomy, as prosperous elite junior performers were given more trust and independence than less successful elite junior performers (Papers I and IV). The need for relatedness was also influenced, as social status and support were partially conditional on the attained competence level of the elite junior performers. Therefore, aspects of needs frustration turned out to be a rather common experience, exposing the young performers to risks of experiencing maladaptive motivational processes. In Study 3 (Paper III), we identified that more than one out of three reported moderate to high levels of both frustration of competence and autonomy. Furthermore, findings suggested that the experienced basic needs frustration was associated with higher levels of performance anxiety and lower levels of perceived performance level (Paper III). Hence, supportive of the SDT tenets and in line with previous research, basic needs frustration contributed to increased overall load on the elite junior performers (Jowett et al., 2016; Li et al., 2013; Vansteenkiste & Ryan, 2013), and thus,

Discussion

was likely to hamper their general TD development (J  r  mie Verner-Filion & Vallerand, 2018; J  r  mie Verner-Filion, Vallerand, Amiot, & Mocanu, 2017).

These findings align with the TD literature that has identified excessive levels of pressure and stress on elite junior performers to perform well and outperform others (Kerr & Stirling, 2017). Indeed, scholars have raised concerns toward the over-emphasis on performance development over human development, and of the development of a narrowed and vulnerable single identity. In turn, the elite junior performers end up more vulnerable when facing performance setbacks (Carless & Douglas, 2013; Kerr & Stirling, 2017; Rongen, Copley, McKenna, & Till, 2014). Findings from Studies 1 and 4 (Papers I and V) indicated that the elite junior performers identified themselves with being dedicated, tough, and talented, and that they seemingly struggled with high expectations, stress, and pressure to maintain their identity. Facing stagnation and failure seemed to set their whole identity at stake, as well as their quality of motivation. In case of some of the vulnerable performers in Study 4 that experienced setbacks and adversity, their experiences showed comprehensive challenges, including unhealthy aspects of ill-being (i.e., obsessiveness, need frustration, performance anxiety, and burnout). One might question the ethical legitimacy of the educational practices provided by these TDEs in relation to the price some of the elite junior performers seemingly had to pay when reaching their dream.

In addition to the performance-oriented culture, controlling conditions turned out to be quite common in these TDEs. Across the domains, the controlling conditions were associated with needs frustration (Papers I, II, and V), and in turn, more passive and less growth-seeking behavior (i.e., controlled motivation), in line with SDT tenets (Bartholomew et al., 2018; Haerens et al., 2016; Vansteenkiste & Ryan, 2013). However, the findings identified nuances and different facets of controlling conditions within the different domains (Papers I and V). The distinct and experience-based apprenticeship tradition, which was more common within the arts (Gaunt, 2008; Lakes, 2005; Nielsen, 2006), was reported to be quite authoritarian, tacit, top-down, and with skewed power relations. Specifically, the performing art performers seemed to normalize their experiences of controlling conditions and to be socialized into being less self-determined (i.e., being more passive, humble, and obedient). An interesting observation in a comparative perspective was that performing arts performers reported higher levels of all the dark side variables (Studies 2 and 3, Papers II, III and IV) and were more likely to be distributed in the more maladaptive profiles of subgroups than sport performers (Paper III and IV). This is in line with the SDT claims that highlight the importance of self-determined and autonomous functioning (Haerens et al., 2016;

Discussion

Ryan & Deci, 2017).

Another overall finding was that control was reported to be of mainly indirect nature (Papers I, II, and V). According to the SDT-based literature, indirectly controlling teaching or coaching may take many forms, such as induction of guilt, provoking shame and anxiety, or triggering contingent self-worth by more subtle methods (i.e., using facial expressions, voice, and withdrawal of attention; Haerens et al., 2016). The findings showed examples of the aforementioned indirect controlling teaching or coaching behaviors. Findings also suggested that the indirect control was partly concealed by the close relationships and the great admiration that the elite junior performers held towards their teachers or coaches (Papers I and V). In line with the SDT beliefs, the findings suggested that the indirect control was underpinned by conditional regard, as approval and acceptance were given when the elite junior performers lived up to expected standards and behaviors (Assor et al., 2014). Consequently, the elite junior performers' need for relatedness came into conflict with their need for autonomy (i.e., passively doing as told and not opposed to pleasing the teacher), as well as the need for competence (i.e., a conflict with the coach could end in disapproval, less attention, and fewer opportunities). In other studies, such concealed and subtle ways of indirect control perceived from significant others have been found more challenging to deal with than direct controlling behavior and to relate to higher levels of poor-quality motivation and ill-being (De Meyer, Soenens, Aelterman, De Bourdeaudhuij, & Haerens, 2016; Soenens & Vansteenkiste, 2010). The findings from the present doctoral thesis extend these previous studies by providing rich descriptions and nuances of how control might unfold and be contextualized in Norwegian TDEs (Papers I and V). Moreover, we identified that these indirect controlling conditions related to maladaptive functioning (i.e., low-quality motivational regulations) and maladaptive motivational consequences, such as negative emotions, performance anxiety, and burnout (Papers I, II, and V).

However, there were some contradictive findings related to how the controlling conditions were reported in the quantitative versus the qualitative studies. In Study 2 (Paper II), the controlling conditions were reported to be low to moderate, whereas in the qualitative studies (Papers I and V), the controlling conditions were perceived as predominant. Indeed, the qualitative analyses showed that the elite junior performers themselves did not always disclose the indirect facets of controlling and conditional aspects in their own TDEs, perhaps not being aware of the controlling conditions when replying to questionnaires. Another aspect to note concerning possible underestimation of controlling conditions was that the elite junior performers were recruited to

Discussion

participate due to their current performance level. As such, they were relatively successful, probably experiencing a lot of social status, attention, and approval from their teachers and coaches. Lastly, the elite junior performers may lack the maturity to critically reflect on their teacher or coach relationships, as the interview data indicated that the elite junior performers tended to normalize and conform to the TDEs' norms and values. Interestingly, in both Studies 1 and 4 (Papers I and V), the elite junior performers who demonstrated predominantly autonomous functioning alongside controlling conditions were identified. This group of performers did raise critiques toward their TDEs and stated their own opinions more openly. They also demonstrated to negotiate more successfully than the performers that showed to be more exclusively driven by controlled regulations (Paper V). In the SDT-based literature, this response to controlling conditions is called *reflective defiance* (Haerens et al., 2016). Reflective defiance is found to be a more autonomous and resilient way of negotiating needs frustration by the use of reflection, consideration, and reasoned ways of opposing.

In the quantitative Study 2 (Paper II), we tested the conditional role of controlling conditions. The results showed that, the higher the controlling conditions, the higher levels and stronger associations between the variables in the debilitating motivational process model (i.e., competence frustration, introjected motivation, external motivation, and performance anxiety). Even low levels of perceived control were associated with maladaptive motivational processes. This finding aligns with research on controlling conditions (Haerens et al., 2016; Haerens et al., 2018) that suggests that controlling teaching and coaching represent a potentially strong and powerful predictor of maladaptive functioning. The results of Study 2 (Paper II) showed that only when the controlling conditions were near zero ($-1SD = 1.13$) did the conditions not function as a moderator in the indirect relationships between PC and the aforementioned variables. Paradoxically, as controlled motivation also has been found to be negatively associated with intrinsic motivation, flow experiences, creativity, and artistic development (Lacaille, Koestner, & Gaudreau, 2007; Smith, 2002; Subotnik, Olszewski-Kubilius, & Worrell, 2011), less-autonomous functioning might indirectly hamper the performance development of the elite junior performers. Other studies of elite junior contexts in sports have demonstrated a positive link between competence satisfaction, intrinsic motivation, and performance development (Fransen et al., 2018; Fransen, Vansteenkiste, Broek, & Boen, 2018; Mertens et al., 2018). Consequently, our findings (Papers I, II, III, and V) indirectly suggest a potential for performance improvement in reducing the perception of controlling conditions, and instead fostering more autonomous functioning in Norwegian elite

junior performers.

The overall findings highlighted the important role played by the TDEs in relation to the elite junior performers' maladaptive motivational processes. Researchers have already written extensively about how coaches and teachers influence performers' health, performance, and overall quality of their athletic and artistic experiences (Felton & Jowett, 2013; Felton & Jowett, 2015; Kerr & Stirling, 2017). This potential for influence that is linked to the power they held over their performers as authority figures and gatekeepers is in line with previous studies (Stabell, 2018; Stirling & Kerr, 2009). However, as demonstrated in the qualitative studies (Papers I and V), this power relation can be utilized both positively and negatively, and is not necessarily abusive or unhealthy per se. Yet, enhanced awareness of safeguarding and ethical responsibility when facilitating TD is a key to preventing unhealthy experiences and reducing the costs of pursuing excellence (Stirling & Kerr, 2009). However, an important finding in the present thesis (Papers I, II, and V) was a variety in how the performers perceived and negotiated their contextual conditions. *Who* the performers were, in terms of their motivational mentality (i.e., vulnerability or robustness), appeared to be an important factor when negotiating the performance-oriented and controlling conditions in the TDEs.

Aim 2

To investigate personal motivational determinants and their relationships with maladaptive motivational processes and various motivational outcomes (Papers I, II, III, IV, and V).

Main findings:

- Externally driven forms of perfectionism and inauthenticity are vulnerability dispositions, which increase the risk of experiencing maladaptive motivational processes and negative consequences (Papers II, III, IV, and V).
- Perfectionism is multidimensional, and diverse combinations of the two main dimensions—PC and PS—seem to co-exist (Papers I, IV, and V).
- PS seem to not function as a buffer in the maladaptive motivational processes (Papers I, IV, and V).
- Autonomous functioning and low levels of inauthenticity seem to play a buffering role in the maladaptive motivational processes (Papers I, IV, and V).
- Basic needs frustration, and especially frustration of competence and autonomy, seems to

Discussion

play a key role as an explaining mechanism in the maladaptive motivational processes (Papers I, II, III, and V).

- Perfectionism seems to be a common vulnerability characteristic potentially increasing the risks and costs by participating in performance-oriented and controlling TDEs.

Even though SDT postulates that all human beings have an innate tendency to engage in growth-seeking behavior, the theory recognizes that there are individual differences, which underpin one's motivational mentality (Deci & Ryan, 2000). In the present doctoral thesis, attention has been given to the innate multidimensional vulnerability characteristics of perfectionism and inauthenticity, and the potential explanatory power they could offer to when and why elite junior performers' motivational processes turn in maladaptive directions. Results from the four studies showed that *who* the performers were mattered, supporting research on TD that highlights the role of adaptive psychological and motivational characteristics as important attributes of successful and healthy performers (Chua, 2014; Jordet, 2016; MacNamara et al., 2006).

As perfectionism is linked to conditional self-worth, and controlling conditions entail conditional regard, operating within controlling conditions is likely to trigger and increase the innate vulnerability of performers possessing higher levels of externally driven forms of PC (DiBartolo, Frost, Chang, LaSota, & Grills, 2004; Madigan et al., 2019; Nordin-Bates, Quedsted, Walker, & Redding, 2012). The overall findings (all papers) supported this line of research, confirming the vulnerability hypothesis of perfectionism, as especially external driven forms of perfectionism turned out to be a contributing factor pushing the performers toward more debilitating motivational processes. In both the cross-sectional Study 2 (Paper II) and the longitudinal Study 3 (Papers III and IV), the findings suggested that sub-dimensions of socially derived perfectionistic concerns (i.e., concern mistakes self-worth and doubts about actions) was positively related to a range of debilitating outcomes, such as each basic need frustration, introjected motivation, external motivation, performance anxiety, and exhaustion. Moreover, PC self-worth was also negatively related to perceived performance level (Paper III). Furthermore, the findings in Study 2 (Paper II), demonstrated that elite junior performers that reported external forms of PC (concern over mistakes based on self-worth and doubts about actions) seemed to perceive their teaching or coaching styles in more controlling manners (i.e., monitoring for disapproval, critical feedback, and imperfection). In line with the assumptions from the perfectionism literature (DiBartolo et al., 2004), the elite junior performers reporting higher levels of perfectionism demonstrated a biased

Discussion

way of orientation, interpretation, and reaction to the world (Papers I, II, and V).

The findings showed some important nuances related to the conceptualization and sub-dimensions of perfectionism. In Study 3 (Paper IV), which used a person-centered analytical approach to examine various composites of perfectionism and inauthenticity, perfectionism demonstrated to be rather multifaceted. The elite junior performers reported moderate to high levels of PS (Papers I, III, IV, and V), reflective of the high ambitions and dedication characterized by elite junior performers (Jordet, 2016; MacNamara, Button, & Collins, 2010a). However, diverse sub-dimensions of PC accompanied PS in four out of five of the performers (Paper IV). These results indicate that there seemingly are many ways of being a perfectionist and contradicted the suggested dichotomy of perfectionism proposing that PS are a distinct and more positive dimension in contrast to PC (Gotwals et al., 2012; Stoeber, Damian, & Madigan, 2017; Stoeber et al., 2007). When displaying a combined PS and PC perfectionism profile, the high levels of PS seem rather to be underpinned by conditional regard and take more rigid and obsessive forms (Paper I, III, IV, and V). These findings align instead with scholars arguing that PC and PS coexist and that PC are a latent maladaptive counterpart to PS (Appleton & Curran, 2016; Hall et al., 2012; Hall, 2006). Indeed, examination of the bivariate correlations supported the notion of coexistence (Papers III and IV). However, PS were unrelated to each need frustration growth curve (Paper III) and ambivalent correlated (positive or non-related) to the dark side variables (study 3, Paper III and IV), and positively related to perceived performance level (Paper III).

However, we discovered additional explanations of the ambivalent nature of PS in our findings. A central finding (Papers III and IV) was that PS did not function as a buffer toward the maladaptive pathway, as suggested by some scholars (Gaudreau, 2016; Gotwals et al., 2012). One explanation might be the performance-oriented backdrop of the TDEs, likely to push the performers' perceived competence in other referential directions, at odds with innate growth-seeking and self-determined behavior (Papers I, III, IV, and V). This behavior was underpinned by the fact that 38% of the elite junior performers were distributed in the moderate and increasing growth profile of competence need frustration (Paper III). However, to report both high levels of PS and moderate levels of PC do not necessarily result in malfunctioning. Instead, the results indicated that inauthenticity played an important role, and that low levels of inauthenticity seemingly buffered the maladaptive pathway (Paper IV). Inauthenticity, which is underpinned by thwarted autonomy (Ryan & Ryan, 2018), is proposed to be a source of external regulation and external locus of causality, and, thus, an indication of controlled functioning. When elite junior

Discussion

performers are reporting low levels of inauthenticity, it might be a reflection of PS that are driven by self-referenced and task-oriented competence evaluation instead of other referentials, in line with more autonomous functioning (Papers I, IV, and V). These elite junior performers were likely to be reflected in the low and decreasing growth profile (61%) of competence need frustration (Paper III). This pattern of competence evaluation has been found in other studies to be adaptive for motivation, well-being, and performance (Elliot et al., 2002; Moreno, González-Cutre, Sicilia, & Spray, 2010; Roberts, 2012). Overall, the higher the levels of inauthenticity, the higher the externally driven forms of PC, and the higher the levels of self-reported malfunctioning, despite high levels of PS. Nevertheless, being an internally driven non-perfectionist is seemingly most preferable (Paper IV), which supports the vulnerability hypothesis of perfectionism independently of the role of PC versus PS (Appleton & Curran, 2016; Hall, 2016; Hill, 2016). Future perfectionism research should expand these preliminary results by using the SDT framework. Specifically, the SDT tenets of self-determined functioning might help elaborate more on the driving mechanisms of when and why perfectionism, and particularly the ambivalent PS, turn (mal)adaptive.

Most studies based on SDT have used a composite measure of needs frustration, which makes it difficult to distinguish between the unique contributions and associations made by each basic psychological need (for a review, see Van den Broeck et al., 2016). However, a recent review concluded that researchers should examine the three needs separately (Van den Broeck et al., 2016). The thesis' strategy of distinguishing between the three needs turned out fruitful and supported other studies showing that performers in sports and the performing arts are likely to experience different levels of the three needs (Kipp & Weiss, 2015; Perreault et al., 2007; Quested & Duda, 2010). The results in the present thesis showed that each need was distributed differently, developing in distinct growth patterns over time (Paper III). Particularly in the performance-oriented TDEs, the need for competence played a key role as an important explanatory mechanism (Papers I, III, and V). Because demonstrating excellence is the core of being an elite performer, experiencing competence need frustration might have negative consequences for the young performers' development and outlooks. The elite junior performers expressed repeatedly in the interviews a deep fear of failure and fear of being in conflict with their teachers or coaches. Even though the participants were successful (top 20% of their age group), their extreme high standards, accompanied by self-critical tendencies, nurtured competence need frustration and feelings of failure. Also, maladaptive growth curve in autonomy frustration, as autonomy frustration entails feeling of being pressured and manipulated (Bartholomew et al., 2011; Haerens et al., 2016), was

Discussion

associated positively with performance anxiety and negatively with perceived performance level (Paper III). Taken together with the findings of the quite controlling and performance-oriented TDEs (Papers I and V), frustration of both competence and autonomy was a reasonable result. In contrast, frustration of relatedness did not associate to performance anxiety or perceived performance level (Paper III). Supported by findings from the qualitative studies (Papers I and V), in which the interpersonal relations were reported to be mostly of close and nurturing nature, the majority of the junior elite performers (89%) were distributed in the low and slightly increasing frustration of relatedness growth profile (Paper 3).

Overall, the findings disclosed that reaching excellence might come with a price. Whereas 1 out of 3 reported externally driven forms of mixed perfectionism (high PS and PC) and autonomy need frustration, as high as 4 out of 10 reported competence need frustration (Papers III and IV). Furthermore, in line with the motivational process model, perfectionism seems to be a common vulnerability disposition that nurtures basic needs frustration, and, in turn, both nurtures maladaptive functioning and debilitating outcomes. Moreover, findings from both the quantitative study (Paper II) and the qualitative studies (Papers I and V) showed that the TDEs, by being performance-oriented and indirectly controlling, played a triggering role in these maladaptive motivational processes of vulnerable performers, nurturing inauthenticity and socially derived behavior, a vulnerability that seemed to be more actualized within the performing arts and among female elite junior performers, given that initial support of domain and gender differences was offered in Study 3 (Paper IV) and in both qualitative studies (Papers I and V). Unfortunately, as the elite junior performers in Norway are few, the sample size in the variable-based quantitative studies (Paper II and III) did not allow for testing multilevel analyses based on domain or gender to further explore these differences. However, qualitative case studies and more large-scale samples targeting Nordic (Norway, Sweden, Denmark, and Finland) elite junior performers that share cultural similarities might be better suited for future comparative analyses.

General Discussion: Maladaptive Motivational Processes among Elite Junior Performers from Sports and the Performing Arts

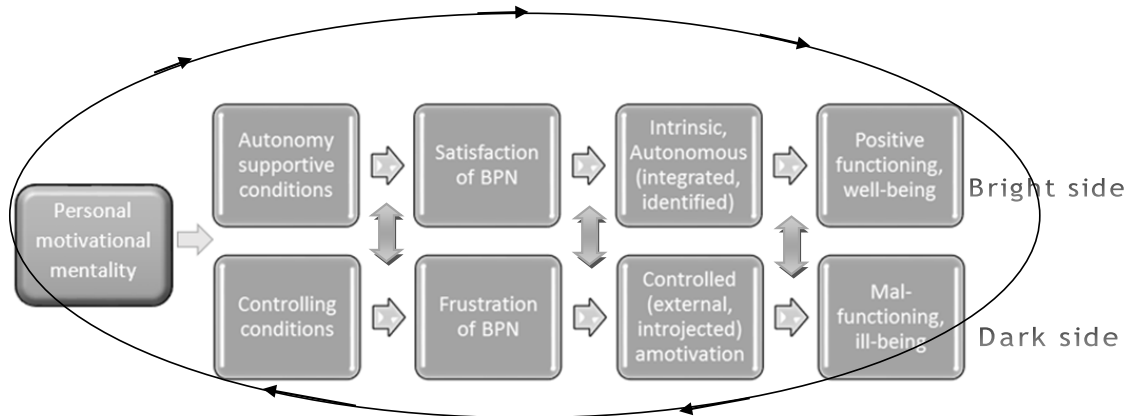


Figure 7. The full process model examined in this doctoral thesis, reflecting the emergent development loop of both bright and dark side motivational processes.

This doctoral thesis has centered around the SDT motivational process model, as visualized in Figure 7. The lens has been on the process rather than each motivational consequence (i.e., the outcome variables) in itself. More specifically, we have investigated different associations between combinations of the two first steps (i.e., personal and conditional determinants) on the one side and the two last steps (motivational regulations and ill-being indicators) on the other side. The basic psychological needs have functioned mainly as the explaining mechanism linking the determinants and consequences together. In the qualitative studies, a broader perspective is taken into account, looking also at the buffering role of factors from the bright side path that coexist.

In general, most of the elite junior performers reported low to moderate mean scores on the dark side path variables (Papers II, III, and IV). The interview data showed intertwined and mixed experiences of both motivational paths. Yet, the tested statistical models from the maladaptive motivational process model (Papers II, III, and IV) supported the tenets of SDT and showed that the theoretical relationships between the distinct dark side variables were strong. This was true despite the tendencies of flooring effects and low mean values in the dark side path. This central finding is in line with assumptions from SDT scholars that have progressively developed knowledge about the unique dark side motivational path (Bartholomew et al., 2018; Bartholomew et al., 2011; Haerens et al., 2015; Haerens et al., 2016). This line of research has shown that the

Discussion

bright and dark side motivational paths are not just opposite poles on a mutual SDT continuum. Rather, they are distinct paths in their own right, with different roots and processes, that can co-occur, influencing overall psychological functioning (Haerens et al., 2016; Haerens et al., 2018). As the present doctoral thesis shows, the maladaptive dark side path seems to be unique, nurturing malfunctioning despite buffering factors from the bright motivational path (Papers I and V).

In Situ, Complex, and Emergent Motivational Processes

The findings from the present doctoral thesis support and align with the understanding of TD as a holistic and ecological process of becoming (Aggerholm, 2014; Henriksen, 2010; Hodkinson, Biesta, & James, 2008). The performers' unique motivational processes that were revealed in the qualitative studies (Papers I and V) reflected what scholars describe as characteristics of in situ processes (Hodkinson et al., 2008). The motivational processes turned out entwined in situations and shifting contexts, demonstrated to be of relational, partial subconscious, and emergent nature. The notion of emergence was a key finding in this thesis, and is elaborated on in Study 4 (Paper V). In an emergent understanding, the parts relate to each other in time and place (Nichol et al., 2017), and a change in one contributing factor might underpin a change in all the others, like an ecological system (Carless & Douglas, 2013; Hodkinson et al., 2008; Nichol et al., 2017). Hence, the sum and (mis)match of diverse motivational factors in the motivational processes are more important than each contributing factor in itself (Hodkinson et al., 2008). This notion was revealed by the way the elite junior performers' motivational processes seemed dependent on the interaction between different individual, conditional, and situational aspects, like a balancing scale. Either a vulnerable motivational mentality or a controlling and pressurized TDE, respectively, could push the elite junior performers toward a less self-determined functioning and into more maladaptive motivational processes (Papers I, II, and V). Conversely, a robust motivational mentality (i.e., as a coping and resilience buffer) or need-supportive TDE conditions (i.e., that limited the perfectionism tendencies and nurtured autonomous functioning), respectively, could operate as positive outbalancing elements. As such, the two latter factors helped performers maintain self-determined functioning despite adversity and striving, nurturing more adaptive motivational processes (Papers I, II, IV, and V).

Lastly, as TD processes are considered as open systems that comprise myriad factors and unstable incidents (i.e., success, failure, injuries, and reselections; Nichol et al., 2017), the overall findings demonstrate that the motivational processes are development loops rather than linear processes, as visualized in Figure 7. Therefore, instead of operating on the bright *or* dark side

Discussion

motivational path, with either optimal functioning (i.e., needs satisfaction and autonomous motivation) *or* malfunctioning (i.e., needs frustration and controlled motivation), the elite junior performers reported experiencing a combination and interchangeable processes of bright and dark side motivational processes. As such, the contribution and value of the qualitative studies, which targeted the complexity of the maladaptive motivational processes, were seemingly essential. However, as most research in performance psychology is quantitative and variable-based (Biddle et al., 2001; Nichol et al., 2017), more qualitative and MMR are indeed needed in this field.

The Role of Self-Determined Functioning When Negotiating Maladaptive Motivational Processes

The link between elite junior performers' self-determined functioning and their capability to strive, survive, and thrive in demanding TDEs were evident in the combined results of the present doctoral thesis. In line with the SDT framework, the findings supported the notion that performers' degree of self-determined functioning (i.e., nutrients of basic psychological needs and overall motivational quality) influenced the negotiation process of surviving and thriving. More self-determined and, thus, more robust performers demonstrated the ability to negotiate more successfully despite operating within controlling or pressurized TDEs and despite experiencing success or failure (Papers I and V). In contrast, more vulnerable and less self-determined performers reported being more dependent on their given conditions and maintained high performance level. However, SDT research has shown that autonomous motivation needs nutrients to be sustained, and that long-term deprivation of the three basic psychological needs, such as from operating in controlling and performance-oriented TDEs, would gradually decrease autonomous motivation and increase controlled motivation (Assor et al., 2014; Badami, VaezMousavi, Wulf, & Namazizadeh, 2011). In Study 1 (Paper I), which took a retrospective long-term approach to the performers' development stories, showed that even the successful performers' motivation, when operating for years in performance-oriented and controlling conditions, changed from intrinsic to more extrinsic forms of regulations. Even aspects of amotivation developed over time, as it became hard to stay motivated during a long-term professional career when lacking autonomous motivation. Consequently, nurturing self-determined functioning and authenticity might not only be important in the negotiation process of becoming an elite performer, but also in the process of maintaining and developing a long-term and healthy elite career.

Another key finding (Papers I, III and V) is linked to the interrelationship between basic

Discussion

psychological needs and composites of motivational regulations. As most of the elite junior performers reported differentiated levels of each basic need frustration (Paper III), they also demonstrated having composites of motivational regulations in different combinations, nurturing a rather complex negotiation process (Papers I and V). SDT postulates that frustration of any of the needs may have costs and highlights the positive value of basic needs satisfaction and autonomous motivation for optimal functioning (Bhavsar et al., 2019; Haerens et al., 2018; Perreault et al., 2007). However, such an ideal situation seems rarely the case in real-life settings. Thus, aligned with our findings (Papers I, III, and V), researchers have begun to investigate the imbalance in people's levels of needs satisfaction or frustration and the possibilities of mixed combinations of need satisfaction and frustration (Perreault et al., 2007; Sheldon & Niemiec, 2006; Van den Broeck et al., 2016). In alignment with the tenets of SDT, where humans are viewed as active and growth-oriented, scholars have suggested that people not passively, but rather actively, use their capacities and self-determined functioning to respond to a need-frustrating situation. By doing so, they try to restore their need balance and growth-oriented nature (Radel, Pelletier, & Sarrazin, 2013; Vansteenkiste & Ryan, 2013). Additionally, previous studies have shown that the three needs themselves create a motivation to be satisfied when thwarted (Radel et al., 2013; Radel, Pelletier, Sarrazin, & Milyavskaya, 2011; Sheldon & Gunz, 2009). Also, some studies have also examined factors that moderate restoration processes after needs thwarting, such as perceived competence (Radel et al., 2013). Our findings support this line of research, revealed especially in Study 4 (Paper V). Most of the vulnerable elite junior performers in this study (Paper V), despite their adversities, managed to negotiate their situations and demonstrated the ability to restore self-determined functioning. Some of them even demonstrated thriving from adversity. Hence, to go under completely in maladaptive motivational processes and experience severe malfunctioning apparently needs the interplay of many negative factors simultaneously (i.e., determinants, conditions, and situations) in these typical high-achieving and ambitious elite junior performers. Yet, the price some of the elite junior performers seemingly pay during their process of becoming an elite performer, of striving and surviving, may be excessively high.

Malfunctioning and Ill-being

Overall, the findings supported the hypothesized associations in the maladaptive motivational process model based on SDT (see Figure 7) as the pathway to malfunctioning and ill-being (all papers). Specifically, the findings indicated new insight and nuances concerning controlled motivation and amotivation. In Study 2 (Paper II), the results showed that introjected

Discussion

motivation had a stronger relationship with externally driven forms of PC, as it was more prevalent than external motivation, and was reflected in the mean values, bivariate correlations, and the direct and indirect effects in the estimated models. The same tendencies emerged in Study 3 (Paper IV), where introjected motivation was the motivational signature of perfectionism and inauthenticity dimensions. Theoretically, introjected motivation relates to conditional self-worth and originates from conditional regard (Assor et al., 2014; Bartholomew et al., 2011; De Meyer et al., 2016). The qualitative results from Studies 1 and 4 (Papers I and V) showed that introjected motivation seemed to be underpinned by the teachers' and coaches' predominant indirect controlling teaching and coaching style, underpinned by their roles as authority figures and gatekeepers, as well as their tendencies to favor the best.

The findings also showed that amotivation seemed to be an issue for many of the elite junior performers, particularly when faced with adversity (Papers I and V). This was another interesting finding related to the motivational outcomes, especially since elite performers previously had been characterized as highly motivated and dedicated (Jordet, 2016; MacNamara et al., 2010a). When examining more in-depth the motivational processes of the most vulnerable performers (Paper V), amotivation seemed to arise in concert with frustrated autonomy and a loss of control over their own TD processes. Feelings of helplessness, resignation, and frustration were reported, followed by the lack of coping, restoration capacity, and increased levels of exhaustion (Paper V). This finding is in line with research on burnout, proposing that amotivation is the motivational signature of burnout (Gustafsson et al., 2017, 2018). Indeed, amotivation is a sign to be aware of as indicative of low self-determined functioning and maladaptive motivational processes that probably have gone awry.

In addition to outcomes of motivational regulations, the present doctoral thesis examined the stress-related outcomes of performance anxiety and experiences of exhaustion. Stress is a likely adversity for elite junior performers, as TDEs from both sports and the performing arts in previous studies were found to be typically stress-enhancing environments (Carr & Wyon, 2003; Kristiansen & Roberts, 2010; Miller & Chesky, 2004). The combined results from the present doctoral thesis demonstrated associations between a vulnerable motivational mindset (i.e., perfectionism and inauthenticity), as well as controlling and performance-oriented conditions on one side, and performance anxiety and exhaustion on the other side, nurtured by basic needs frustration and low-quality motivation (all papers). These results are in line with previous SDT-based research on performance anxiety and burnout (Appleton & Hill, 2012; Gustafsson et al., 2017; Stoeber et al.,

Discussion

2007).

The findings from the qualitative studies in particular revealed many explanations of the stress-enhancing character of the TDEs. The sometimes-extreme performance focus, in which success and competence development seem to be all that mattered, was a setting that increased the likelihood of failure, adding exposure and pressure, especially to the more vulnerable and externally driven performers (i.e., perfectionistic, low quality motivation; Papers I and V). Specifically, the vulnerability of PC and controlled motivational (i.e., introjected motivation), which link self-worth to accomplishments, seem especially actualized. As such, the stress level increases. Furthermore, as both low-quality motivation and externally driven forms of perfectionism are found to be associated with maladaptive coping strategies (Flett & Hewitt, 2016; Mahoney et al., 2014; Verner-Filion et al., 2014), the ability to encounter the stressful situation seems to be immobilized. Therefore, elite performers showing high levels of externally driven forms of perfectionism and low-quality motivation are less likely to engage in resilience processes and growth-seeking behavior (Paper V), upholding their maladaptive motivational process.

In general, when operating within the maladaptive motivational processes, the elite junior performers' malfunctioning is likely to negatively affect the TD process and, in turn, their performance development. Findings from the qualitative studies (Papers I and V) showed that elite junior performers reporting experiences with maladaptive motivational processes perceived these experiences to negatively influence their TD process and performance development. In the longitudinal Study 3 (Paper III), we specifically used perceived performance level as an outcome, further demonstrating that decreased perceived performance level was associated with frustration of both needs for competence and autonomy, as indicators of malfunctioning. Moreover, as higher levels of external forms of PC, as a determinant, were associated with the most maladaptive growth profiles in basic needs frustration (Paper III), the results indicated that a relentless pursuit of high standards, extreme dedication, and a tendency to over-striving do not always result in a positive performance development for elite junior performers. Instead, the striving for high standards seems more likely to nurture debilitating motivational processes, which, over time, undermine the basic needs, and, in turn, performance development. Even though we used self-reported and subjectively perceived performance level, the results are still important in a psychological perspective. How elite junior performers perceive and interpret their TD processes is indeed of psychological importance, as it will affect their emotional, cognitive, and behavioral responses to the situation (Gonzalez, 2016; Lazarus, 2000). It does not necessarily matter if their performance

Discussion

is objectively good if they themselves have a maladaptive way of interpreting and crediting their performances and end up getting disappointed, frustrated, shameful, worried, stressed, afraid, or obsessed anyhow. Especially within the domain of the performing arts, objectively ranking and evaluation are rarer (Davidson & Da Costa Coimbra, 2001). Hence, unrealistic performance evaluation might more often be a common psychological challenge, as shown in Study 1 and 3 (Paper I and III), where art performers demonstrated a tendency to underestimate their own competence and accomplishments (Paper I) and to be distributed in the moderate and increasing competence frustration growth profile reporting lower levels of perceived performance level (Paper III). Also the results in regard to the distribution of girls in contrast to boys in study 3 (Paper III and IV) indicated that girls are more likely than boys to be concerned over mistakes, fear social rejection (Paper III), and experience performance anxiety (Paper III and IV). Thus, they perceive their performance level in a more negatively biased way (Paper III and IV). In future studies, it would be intriguing to examine both perceived and objective performance measures in association with maladaptive motivational processes, to elaborate further on how a biased self-evaluation relates to objective performance and vice-versa.

Applied Perspectives

The present doctoral thesis is likely to be of highly applied relevance. The results offer nuanced insight into Norwegian TDEs in sports and the performing arts, as well as the motivational processes of elite junior performers participating in such TDEs. Although more research is needed to offer a robust picture, several tentative practical implications are offered. The findings showed some distinct and common features of the elite junior performers, which are important to note when working with TD. The typical Norwegian elite junior performer seems to be highly dedicated and ambitious, striving for high standards. However, while mostly operating on the adaptive and healthy bright side path, they also report elements of co-occurring maladaptive aspects that might expose vulnerability and potential risks of entering maladaptive motivational processes. The qualitative findings indicated that high ambitions and motivation in this unique high-achieving population make them capable of enduring almost whatever it takes to fulfill their dream. This striving motivational force seems true, even if it results in ill-being and compromised health. Hence, elite junior performers might need special help to safeguard their practice, increase their mental robustness, and take care of their own needs to better balance performance development with personal development.

First, the motivational climate that the TDEs provide might be of crucial importance. The

Discussion

findings provided insight into how performance-oriented and controlling TDEs might function as negative determinants of maladaptive motivational processes. Hence, Norwegian TDEs should be cognizant of factors identified to increase performance pressure and controlled motivation, such as focusing on the best, setting high expectations, underpinning conditional social status, and offering approval only after success. Instead, the TDEs should provide autonomy-supportive, student-centered, and mastery-oriented conditions (Curran & Standage, 2017). Specifically, they should focus on individualized learning and development, self-regulation and self-control, exploration and creativity, and feedback that is informal and constructive, creating close, warm, and supportive relationships (Curran & Standage, 2017; Ryan & Deci, 2017).

Second, the teachers and coaches should pursue using the power they hold over the elite junior performers in a constructive manner, as they often are seen as authority figures and gatekeepers. Specifically, they should be more aware of the innate complexity in developing excellence and how they as significant others, nurtured by performers' need for approval and selection, indirectly hold power over their students. Even if it might not be intentional, they might end up as indirectly controlling teachers or coaches by the use of conditional regard (i.e., by the use of praise, attention, feedback, re-selection, facial expressions, tone, and focus). Teachers and coaches should instead acknowledge the performers as they are (i.e., the true self), not conditional on their obedience or accomplishments. Additionally, they should be warm, caring, and need-supportive, seeking the performers' perspectives to pursue cues of how to enhance learning, not imposing their own perspective and preferred learning strategies on the performers (Ryan & Deci, 2017).

Finally, teachers and coaches working with elite junior performers should be more aware of the motivational mentality of their performers and the prevalence of vulnerability dispositions, such as perfectionism and inauthenticity. Only one in five performers was distributed in the adaptive profile of internally driven non-perfectionism, and almost one in three was distributed in the most maladaptive externally driven mixed perfectionism profile (Paper IV). Hence, to take for granted and expect mental robustness as a common attribute of elite performers might be detrimental, as highlighted by other scholars (Kerr & Stirling, 2017). The results of the present doctoral work might provide more insight into such characteristics, as well as potential triggers and buffers to facilitate more sound and healthy TD processes. Once again, the overall findings emphasized how needs-supportive conditions and autonomous functioning might function as a buffer toward personal vulnerability in performers, in line with SDT tenets (Ryan & Deci, 2017).

Discussion

In order to meet these applied implications, teacher and coach educational programs should be mandatory, research-based, and theoretically sound, offering guidance in how to facilitate holistic TDEs that balance personal development and performance development (Liu, Wang, & Ryan, 2015).

Methodological Strengths and Limitations

Strengths

The present doctoral thesis has several strengths. First, we consider the use of MMR an important strength that provides a more comprehensive account of the phenomenon under investigation. The MMR made it possible to conduct an iterative research process that combined qualitative and quantitative methods (Onwuegbuzie & Johnson, 2006). Hence, it provided us with a more complete, far-reaching, and iterative conceptualization (i.e., research questions and emic and epic perspectives), as well as triangulation of different research designs (i.e., a variety of data sources and analytical approaches). Moreover, through the MMR approach, we strengthen the validity by seeking confirmation, convergence, and coherence between different types of data, as well as balancing the strengths and weaknesses related to both quantitative and qualitative methods (Bergman, 2008; Onwuegbuzie & Johnson, 2006). Combined, the credibility of the overall meta-inferences concerning elite junior performers' experiences related to the maladaptive motivational process model is strengthened. The sequential multiphase tactic was fruitful, as we could let findings from one study inform and connect to the next phase. We started with qualitative exploratory and practice-based initial phases, continued via quantitative model testing, and ended with qualitative explanation, illustration, and interpretation.

A second strength is the high-achieving sample of elite junior performers (top 20%). Comprising successful elite performers taking a retrospective perspective on their investment years (Paper I), two distinct but overlapping cross-sectional (Paper II) and a longitudinal (Papers III and IV) samples of current elite junior performers, and a purposefully selected sample of current elite junior performers reporting high basic need frustration (Paper V), the unique overall sample from the most prestigious TDEs in Norway (response rate close to 80%) is unique and of particularly high applied relevance.

Third, the prolonged engagement with the data alongside the relevant lived experiences of the candidate and the research team are all strengths in relation to conceptualization, qualitative analyses, and interpretation of the results. Furthermore, this strength may also contribute to a better alignment between theory and practice, strengthening the applied relevance of the results.

Discussion

Finally, the use of SEM and advanced statistical approaches, such as conditional process modeling, GMM, and LPA, are strengths. These are considered robust computer-intensive and data-driven analyses, providing several attributes, such as bias-corrected bootstrapping with CI, model fit indices, CFA validation, and robust methods for dealing with missing data (for details, see Muthén, Muthén, & Asparouhov, 2017).

Limitations

Despite several strengths, the present doctoral thesis has some limitations. Although limitations related to each study are highlighted in the results section and in each paper, some overall methodological themes need special attention. Hence, above, we outline sample issues and validation of the F-MPS.

Sample issues. Two main concerns linked to the sample need clarification: (a) sample size and statistical power, and (b) homogeneity versus heterogeneity. Multilevel analyses require substantial statistical power (VanVoorhis & Morgan, 2007). As our samples were considered to be in the lower range (N range = 171–263), our statistical analyses in Studies 2 and 3 were performed on the whole samples of elite junior performers to ensure sufficient power. We applied a priori power calculations and attained several supplemental strategies to increase statistical validity (i.e., precision of estimated variables [CFA, reliability, and MI], parsimony models, manifest variables, sound theoretically driven models, model fit indices, and bias-corrected bootstrapping with CI).

Because of the need to ensure sufficient power, the strategy of including Norwegian elite junior performers from several individual sports and two performing arts domains in one sample might raise some questions about heterogeneity versus homogeneity (Schreier & Flick, 2017). There are considerable individual differences, as well as domain differences, within the merged elite junior population. Yet, we will argue that the homogeneity linked to the targeted high-achieving (top 20%) elite junior performers is distinct and likely to be at least at the same level as the homogeneity across different types of performers (i.e., leisure vs. elite). For instance, several studies have identified distinct common psychological factors associated with successful elite performers across domains (Jordet, 2016; MacNamara et al., 2010a; Subotnik et al., 2011). Concerning differences in the performing arts group comprised of performers from classical ballet and classical music, we will highlight that they share many similar cultural characterizations. They are both based on conservatoire traditions and professionalized long-termed deliberate practice, highly experienced-based, with a strong focus on developing technique and artistic interpretations, early specialization, teacher-led practice, and classical Western traditional art (Johnson, 2011; Lakes, 2005; Pecun et al.,

Discussion

2016). Hence, the homogeneity between classical music and ballet is likely to be at the same level as in between different individual sports domains, which are often studied together as merged samples in sports sciences (e.g., Drew et al., 2018; Gustafsson et al., 2018).

Additionally, this power strategy limited the comparative perspective of the present doctoral thesis. Hence, the aims of the tested models in Studies 2 and 3 focused on testing theoretically driven research questions that examined hypothesized associations and paths within the maladaptive motivational process model in high-achieving elite junior performers. Hence, the domain differences were examined as demographic variables, in combination with gender differences, investigated in the descriptive statistics. We did also test and report group differences (ANOVAs) on all study variables (Papers II, III, and IV), as well as testing the distribution of gender and domain in the identified latent profiles in Paper IV. In Study 2 (Paper II), we controlled for the domain differences in the tested models. Furthermore, the comparative perspective was explored in the qualitative, with particular focus on the motivational conditions offered by the TDEs. Even though the findings contributed with nuances regarding the facets of controlling conditions and in the identity categories related to elite junior performers (Paper I), the results indicated similarities across the domains (Papers I and V). Hence, the identified variety (qualitative) and variance in the study variables (quantitative) seemed to stem mostly from the targeted individual level across the domains (Papers I, II, III, and V). Based on these initial and limited comparative findings, we need more future studies targeting the comparative perspective between sports and the performing arts. Future case studies of the different TDEs, targeting individual, inter-relational, situational, and structural aspects, might add important knowledge.

Validation of F-MPS. Over the past 25 years, empirical evidence suggests that PC and PS are higher-order dimensions of perfectionism. Comprising diverse combinations of several lower-order perfectionism facets (i.e., concern over mistakes, doubts about actions, and fear of negative social evaluation) and measured by several instruments (e.g., F-MPS, HF-MPS, S-MPS, and MIPS) the conceptual clarity of particularly PC seems not yet fully reached (Cox, Enns, & Clara, 2002; Madigan & Stoeber, 2016; Smith, Saklofske, Stoeber, & Sherry, 2016). This notion has been reflected in the present doctoral thesis, especially in the quantitative studies leaning on a general perfectionism instrument. The choice of F-MPS was made early in the research process and partially for pragmatic reasons. As the candidate works within the field of dance and dance science, we chose to build on existing research in the field of dance that has successfully used contextualized versions of F-MPS (Cumming & Duda, 2012; Nordin-Bates et al., 2017; Quedsted, 2014). We

Discussion

translated the F-MPS to Norwegian and contextualized the items to the Norwegian sports and performing arts domains.

As reported in the results section, and as elaborated on in the supplemental material in each paper, we faced some challenges related to the subscale: concern over mistakes in F-MPS (Frost et al., 1990). Other studies using this scale have also faced some challenges with cross-loadings and/or low loadings on the respective subscales and have used reduced and adjusted sub-scales (Cox et al., 2002). However, more validation studies in different populations are still needed to reach conceptual clarity. The nine-item subscale concern over mistakes (CM) did not provide an acceptable fit to the data in the initial CFA in Studies 2 (Paper II) and 3 (Papers III and IV). We therefore combined EFA in SPSS and theoretical interpretation to inductively explore and develop an adjusted scale (Tabachnick & Fidell, 2007).¹ Results of the factor analysis process showed that the scale divided into two separate dimensions instead of the original one-factor solution. The first factor reflected perfectionism driven by conditional self-worth, while the second factor mirrored internal distress over making mistakes and not being the best. We will therefore argue that this is a theoretically sound split between PC that stems mainly from internal and personal sources (CM internal distress) versus external and socially driven types (CM self-worth). This differentiation is also suggested by other scholars (Appleton & Curran, 2016; Hewitt et al., 1991; Madigan & Stoeber, 2016) and is also in line with the core tenets of SDT (Ryan & Deci, 2017).

Furthermore, we will argue that the split offers additional information and nuances to the conceptualization and discourse concerning perfectionism (i.e., internal or externally driven forms of perfectionism) that might extend the sport psychology literature. Also empirically, this split was supported, as the strength of the estimates, and model fit indices were increased in the adjusted models of the CM scale. In Study 3 (Paper III), the sub-sub-dimensions of PC (i.e., CM self-worth, CM internal distress, and doubts about actions) offered unique contributions and explanatory power to the results. The findings in the qualitative studies (Papers I and V) further extended the conceptual exploration of diverse sub-dimensions, as they took on a broad and multidimensional perspective derived from the lived experiences of the participants.

Overall, the experience with facing some challenges with the F-MPS scale has been a fruitful experience regarding the important role that the quality of the measurement instruments has in the research process and the challenges that novel scholars meet when entering the jungle of available

¹ Details of this validation process are provided in full text in supplemental materials to Papers II, III, and IV.

Discussion

instruments. The main findings, despite these challenges, were coherent across the studies and across the different use of sub-dimensions and samples. In a theoretical perspective, this notion supports a higher-order conceptualization of PC and PS, nurtured by several sub-dimensions of multidimensional perfectionism from a variety of perfectionism instruments (Hill, 2016; Madigan & Stoeber, 2016).

Conclusions

The purpose of the present doctoral thesis was to get deeper insight into the complexity of the motivational processes of elite junior performers from sports and the performing arts. As striving and surviving are a natural part of becoming an elite performer, this doctoral work has centered on the SDT dark side process model. Specifically, the current thesis identified that elite junior performers' maladaptive motivational processes seem dependent on the interaction between motivational dispositions (who), contextual conditions (where), and situational incidents (when).

Even though elite junior performers appear to be mostly robust and self-determined, the examined vulnerability dispositions of externally driven forms of perfectionism and inauthenticity seem to be prevalent and noticeable. The vulnerability appears to increase the likelihood of experiencing maladaptive motivational processes and debilitating motivational consequences. Furthermore, the present doctoral thesis has indicated that, the more vulnerable, the more likely to be dependent on the given conditions and maintained success. On the other hand, robust and more self-determined performers negotiate more successfully their challenging conditions, despite success or failure.

Taken apart from SDT, the overall findings supported the tenets of SDT. Our findings showed that the TDEs, by the way they provided motivational conditions, influenced the elite junior performers' maladaptive motivational processes and, in turn, various motivational outcomes in distinct ways. In general, the TDEs provided both autonomy-supportive and controlling conditions. However, the TDEs appeared as quite professionalized, performance-oriented, and controlling, hence increasing the elite junior performers' risks and costs of participating in the TDEs, especially in the performers displaying higher levels of externally driven forms of perfectionism and inauthenticity.

The sum and (mis)match of these above personal and contextual factors was like a balancing scale, influencing the elite junior performers' overall experiences of striving, surviving, and thriving. When negotiating the maladaptive motivational processes, the role of self-determined

Discussion

functioning (i.e., inauthenticity, basic needs frustration, and motivational regulations) played a key role in relation to the elite junior performers' coping, learning, and thriving. Overall, the less self-determined, the more likely the maladaptive functioning and unsuccessful negotiation. In turn, the lack of autonomous functioning nurtured debilitating outcomes of ill-being and decreased perceived performance level.

In conclusion, to help future elite junior performers in their processes of becoming elite performers, TDEs should facilitate self-determined functioning. By doing so, the TDEs could better aid and safeguard elite junior performers in developing their potential, as both a performer and a human being, in line with contemporary and holistic views on talent development.

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Paper I

Haraldsen, H. M., Nordin-Bates, S. M., Abrahamsen, F. E., & Halvari, H. (Accepted). Thriving, striving, or just surviving? Learning conditions, motivational processes and well-being among Norwegian elite performers in music, ballet, and sport. *Roeper Review*.

1 **Thriving, Striving, or just Surviving? Learning Conditions, Motivational**
2 **Processes and Well-being among Norwegian Elite Performers in Music,**
3 **Dance, and Sport**

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20

Motivational Processes among Norwegian Elite Performers

21

Abstract

22 This study explored the motivational experiences of nine successful elite performers in ballet,
23 music, and swimming at Norwegian talent development (TD) schools. Semistructured
24 interviews were conducted. Thematic analysis revealed that the performers navigated within
25 and between several contextual layers, characterized by egalitarian values, high-performance
26 deliberate practice, and controlling conditions. These TD learning conditions provided
27 multifaceted motivational experiences that affected performers' motivational regulation,
28 ranging from predominantly self-determined, via multifaceted, to predominantly controlled.
29 The types of motivational regulation mattered, as performers regulated by self-determined
30 motivation engaged in their performance development in a more joyful, robust, and healthy
31 way (i.e., self-realization, flow, self-esteem, and vitality), showing less dependence on their
32 given TD learning conditions. In contrast, performers regulated by controlled motivation
33 reported higher vulnerability, and in turn, more ill-being (i.e., low self-esteem, perfectionism,
34 obsessiveness, anxiety, negative affect, and exhaustion).

35 *Keywords:* motivation, motivational climate, educational psychology, performance
36 psychology, talent development

37

38 **Thriving, Striving, or Just Surviving? Learning Conditions, Motivational**
39 **Processes, and Well-Being Among Norwegian Elite Performers in Music, Dance, and**
40 **Sports**

41 Attaining excellence in the arts and sports is hard; one has to endure years of
42 deliberate practice, and navigate through a demanding talent development (TD) process
43 (Ericsson, 2008; Pecun, Collins, & MacNamara, 2018; Walker, Nordin-Bates, & Redding,
44 2010). TD is recognized as situated, dynamic, and multidimensional, and researchers have
45 focused on how motivation operates as a salient psychological factor (Jordet, 2016;
46 MacNamara, Button, & Collins, 2010; Vansteenkiste, Sierens, Soenens, Luyckx, & Lens,
47 2009). In the arts, as in sports, the strength and the quality of motivation in individuals are
48 believed to interact with cues from the learning environment, thus influencing the talent
49 development process (MacNamara, Holmes, & Collins, 2006; Quested & Duda, 2011).

50 Successful elite athletes, dancers, and musicians are characterized by many of the
51 same motivational characteristics (e.g., intrinsic motivation, high standards, flow, and
52 adaptive coping strategies) compared with less successful performers (Jordet, 2016;
53 MacNamara et al., 2006, 2010; Quested & Duda, 2010). In contrast, motivational conditions
54 and learning environments may vary across contexts (e.g., cultures, domains, and traditions)
55 and TD stages (e.g., sampling, specialization, and investment years; Côté, Baker, &
56 Abernethy, 2007), likely influencing young performers' development and functioning in
57 different ways (Quested & Duda, 2010; Subotnik, Olszewski-Kubilius, & Worrell, 2011;
58 Vansteenkiste & Ryan, 2013). Thus, the present study aimed to investigate the relations
59 between conditions (where you are), motivational characteristics (who you are), and
60 implications (thriving, striving, and/or surviving), by exploring established elite performers'
61 experiences of diverse TD schools.

62 **The Motivational Process**

Motivational Processes among Norwegian Elite Performers

63 Motivation is an ongoing process that energizes, directs, and maintains behavior (Deci
64 & Ryan, 2000; Ryan & Deci, 2017). In TD settings, optimal motivation may be crucial for
65 learning and development, and for healthy participation (Fransen, Boen, Vansteenkiste,
66 Mertens, & Vande Broek, 2018; Lacaille, Koestner, & Gaudreau, 2007; Mahoney,
67 Ntoumanis, Mallett, & Gucciardi, 2014). A review of education for the gifted (Subotnik et al.,
68 2011) highlighted how gifted students are motivated by diverse motivational factors, and
69 asked for more research on the interrelations of motivational aspects in TD. However,
70 motivational theories are often studied separately, and seldom connected synergistically.
71 Therefore, in this explorative study, an inductive and open approach to theory was used. A
72 range of theories were used to construct an extensive interview guide (achievement goal
73 theory, passion theory, self-determination theory, flow, and perfectionism), and each theory
74 was then considered during the analysis. Eventually, self-determination theory (SDT; Ryan &
75 Deci, 2017), coupled with aspects of flow (Nakamura & Csikszentmihalyi, 2009) and
76 perfectionism (Hill, 2016), emerged as the most relevant theory. For the sake of brevity, only
77 these selected theories are outlined below.

78 SDT could be a widely applicable motivational framework for TD contexts, as it
79 investigates the determinants of optimal human functioning and personal growth (Deci &
80 Ryan, 2000; Vansteenkiste & Ryan, 2013). SDT differentiates among three forms of
81 motivation (intrinsic, extrinsic, and amotivation). When intrinsically motivated, people are
82 most self-determined or autonomous, and endorse their activity because of enjoyment or
83 interest. Extrinsic motivation consists of four types of regulation differentiated by the degree
84 of self-determination, which describe two types of autonomous regulation and two types of
85 controlled regulation (Deci & Ryan, 2000). When driven by autonomous regulation, one
86 endorses an activity with authenticity, either because it is interesting and/or meaningful
87 (integrated regulation), or personally important (identified regulation). In contrast, controlled

Motivational Processes among Norwegian Elite Performers

88 motivation is less self-determined, emanates from internal or external control, and is driven by
89 obligation, guilt, or shame (introjected regulation), and/or by coercive demands, pressure, and
90 reward (external regulation; Bartholomew et al., 2018). Amotivation is associated with
91 nonregulation, and characterized by feelings of incompetence and lack of meaning (Deci &
92 Ryan, 2000). An individual's motivational profile might be multidimensional, a blend of the
93 different types of regulation. For example, elite athletes have been found to possess high
94 levels of autonomous and controlled motivation (Gustafsson, Carlin, Podlog, Stenling, &
95 Lindwall, 2018).

96 Research in achievement settings has generally supported the tenets of SDT, and
97 showed that autonomous regulation is associated with adaptive functioning and positive
98 outcomes (Evans & Bonneville-Roussy, 2016; Ivarsson et al., 2015; Quested & Duda, 2011).
99 For instance, satisfaction of the need for competence and autonomy is associated with
100 enhanced *flow* (Schüler, Sheldon, & Fröhlich, 2010). Flow is a state of intrinsic motivation in
101 which a person is fully absorbed for the sake of the activity itself, and is positively related to
102 peak performance (Hefferon & Ollis, 2006; Nakamura & Csikszentmihalyi, 2009; Thomson
103 & Jaque, 2016). Conversely, controlled motivation is associated with maladaptive functioning
104 and ill-being (e.g., higher levels of perfectionism, lack of adaptive coping strategies, and in
105 turn, increased stress, burnout, and performance anxiety; Gustafsson et al., 2018; Haerens,
106 Vansteenkiste, Aelterman, & Van den Berghe, 2016; Mouratidis & Michou, 2011). The
107 motivational signature of perfectionism is characterized by striving for flawlessness,
108 accompanied by harsh self-evaluation and oversensitivity to mistakes (Hill, 2016).
109 Perfectionism is paradoxical, found to exert a strong drive (i.e. dedication and persistence),
110 and to facilitate debilitating behavior patterns (i.e., obsessiveness, rigidity, and avoidance
111 strategies; Hall & Hill, 2012; Hill, 2016). Elite performers are more likely to possess
112 perfectionistic tendencies (Dunn, Dunn, & McDonald, 2012), and performers with controlled

Motivational Processes among Norwegian Elite Performers

113 motivation typically display higher levels of debilitating perfectionistic behavior patterns
114 (Barcza-Renner, Eklund, Morin, & Habeeb, 2016; Stoeber, Damian, & Madigan, 2017).

115 **Motivational Processes in TD Settings Manifested in the Arts and Sports**

116 Motivational conditions (e.g., teaching or coaching style) are important for
117 motivational quality (e.g., autonomous/intrinsic or controlled/extrinsic; Ryan & Deci, 2017).
118 Known to facilitate autonomous motivation, in autonomy-supportive conditions, typically the
119 teachers and coaches relate to the performers' perspective, encourage self-initiative and
120 exploration, offer relevant choices, and provide constructive and informative feedback
121 (Reeve, 2009; Ryan & Deci, 2017). In contrast, in controlling conditions, teachers and
122 coaches tend to pressure performers, enforcing or manipulating a preconceived way of
123 thinking, feeling, or behaving (Bartholomew et al., 2018; Reeve, 2009). Research in the arts
124 and sports indicates that autonomy-supportive conditions nurture autonomous motivation,
125 optimal functioning, and well-being, and therefore, are considered supportive of adaptive TD
126 processes (Evans & Bonneville-Roussy, 2015; Fransen et al., 2018; Haerens, Aelterman,
127 Vansteenkiste, Soenens, & Van Petegem, 2015; Hancox, 2014). Paradoxically, and despite the
128 research evidence, controlling teaching and coaching styles appear to be common (Johnson,
129 2011; Pecun, Collins, & MacNamara, 2016; Reeve, 2009).

130 Performance domains are manifested in diverse TD cultures that set pedagogical and
131 structural conditions of deliberate practice (Grecic & Collins, 2013; Johnson, 2011; Persson,
132 2000). The present study is situated in Norway, in many ways a typical small Nordic country
133 with a comprehensive public welfare system. Based on social–democratic, nonhierarchical,
134 and egalitarian values, the Nordic cultures are founded on autonomy (Arnesen & Lundahl,
135 2006; Ronglan, 2015). Embedded in the egalitarian model, elite sports within the Nordic
136 countries are developed bottom-up within voluntary-based and democratic sports
137 organizations promoting broad participation, sports sampling, late specialization, and healthy

Motivational Processes among Norwegian Elite Performers

138 participation (Côté et al., 2007; Ronglan, 2015). The Nordic sports model has emphasized the
139 value of informal practice based on play, combined with a holistic approach (focusing on
140 balancing physical skills, technique, mental skills, and attitudes in an individualized learning
141 process; Côté et al., 2007; Ronglan, 2015). Such practices are in line with the tenets of SDT
142 (e.g., autonomy-supportive; Ryan & Deci, 2017), and claimed to be evidence-based and sound
143 (Grecic & Collins, 2013; Martindale, Collins, & Daubney, 2005).

144 At the same time, TD schools in classical music and ballet reflect an experience-based
145 performance tradition, and are held at state-governed specialized universities (e.g.,
146 conservatoires) developed over centuries (Burwell, 2013; Nielsen, 2006). TD schools are
147 considered to involve early specialization, formal top-down delivered learning methods, and
148 asymmetric power relations (Nordin-Bates, 2014; Pecen et al., 2016; Stabell, 2018). For the
149 student, the relationship with his or her teacher is important, because he or she is seen as a
150 gatekeeper (Burwell, 2013; Pecen et al., 2016). In a study of dance conservatoires, 78.3% of
151 students reported their teacher was the most important person in their career (van Rossum,
152 2001). Moreover, the learning methods (based on observation and imitation, followed by
153 teacher feedback and correction) may be seen as relatively passive and nonautonomous
154 (Johnston, 2006; Lakes, 2005; Morris, 2003). Especially in ballet, there might be an extreme
155 objectification of the learner, where gifted young dancers, fixated on extreme body-image
156 demands, ought to be “hardened” and “put to the test” (Gray & Kunkel, 2001; Nordin-Bates,
157 2014). Music students are challenged in other ways, as music typically demands solo practice
158 for several hours each day. Thus, self-regulation and self-determined motivation are important
159 attributes, but as research has pointed out, these skills are developed far too late in music
160 students (Hatfield, 2016). Thus, an increased focus on autonomous motivation could be
161 beneficial, to enhance music development (Bonneville-Roussy & Bouffard, 2015; Hatfield,
162 Halvari, & Lemyre, 2016).

163 **The Present Study**

164 Based on the issues outlined above, the present study aimed to explore and identify
165 TD learning conditions, and how they relate to performers' motivational processes and well-
166 being. Few studies have examined motivational processes in different performance contexts,
167 and the lack of research seems especially pronounced within performing arts domains. To
168 support effective change, in-depth investigations that explore and identify how multifaceted
169 conditions unfold, and are perceived and responded to by performers, might be useful. In
170 addition, the vast majority of motivation research is quantitative, lacking the possibility of
171 exploring individuality and complexity. Thus, this study was designed with qualitative
172 methods guided by the following research question: In what ways did elite performers in
173 classical music, ballet, and sports experience and characterize their TD learning conditions,
174 and how did these experiences relate to the performers' motivational processes and well-
175 being?

176 **Method**

177 **Contextualization, Participants, and Ethical Considerations**

178 The study focused on specialized TD schools at the precollege level facilitating
179 performance development during the investment years (Côté et al., 2007). TD schools within
180 the arts are run by specialized universities, while TD schools in sports are operated by sports
181 federations in collaboration with the Norwegian Olympic Center and specialized private high
182 schools for elite sports. The Norwegian TD system aligns with Bloom's TD model phases
183 (i.e., romance, precision, and integration), and the targeted TD schools and programs were
184 within stage three (integration), with entrance regulated by competitive auditions, offering
185 acceleration and enrichment (Subotnik et al., 2011).

186 We purposefully selected nine successful participants with experiences of TD schools.
187 To get rich data, we targeted successful performers who had "made it," and were in safe

Motivational Processes among Norwegian Elite Performers

188 positions to make long-term processed meta-reflections. This perspective is in contrast to that
189 of young TD performers, which may lack deep reflection on long-term impact. Participants
190 were recruited from the Oslo Symphonic Orchestra (participants 1m, 2m, and 3m), the
191 Norwegian National Ballet (participants 4d, 5d, and 6d), and among former national senior
192 swimmers (participants 7s, 8s, and 9s).¹ Inclusion criteria were (a) experience of a prestigious
193 elite Norwegian TD program at the highest level and (b) an established professional career
194 (musicians and dancers) or a top five position at an international championship (swimmers).
195 All participants had started relatively young, and had long experience, as documented in the
196 appendix (see Table A1).

197 We contacted participants through email and by phone, and they received written and
198 oral information about the study before voluntarily consenting to participate. The Norwegian
199 Center for Research Data gave approval before we commenced.

200 **Data Generation and Rigor**

201 **Semistructured interviews.** The interview guide included four overarching
202 dimensions, developed to address (a) motivational characteristics (motivational regulation,
203 dedication, aspirations, and view on success and failure); (b) learning conditions
204 (relationships, mastery vs. performance focus, learning strategies, autonomy support vs.
205 controlling style); (c) person–environment interaction (match or mismatch of motivational
206 characteristics and TD learning conditions); (d) implications for motivational processes and
207 well-being. To tap more freely into the participants’ lived experiences, we structured the
208 interviews by first asking open-ended questions within each general dimension: (a) “Why did
209 you practice your activity, and why did you choose to invest so much in your activity?”, (b)
210 “What were the learning conditions in your activity like?”, (c) “In what ways did you

¹ Swimming became the chosen sport, as it is an individual and highly technical sport with international prevalence and high amounts of deliberate practice at young age. Thus, swimming has comparable features to ballet and classical music.

Motivational Processes among Norwegian Elite Performers

211 experience that the received help and support fitted your needs and aspirations?”, and (d)
212 “What role do you think the learning conditions in the TD program played in your learning
213 and development, and for your well-being in general?” Additionally, we asked follow-up
214 questions, as well as spontaneous questions within each dimension, in an attempt to dig
215 deeper into the core concepts and reflections that appeared during the interviews. The first
216 author conducted all the semistructured interviews face-to-face, which were audio-recorded
217 (range 39–108 min) and transcribed. NVivo 11 was used in the data analysis to facilitate the
218 thematic analysis.

219 **Data analysis.** We utilized thematic analysis, informed by Braun and Clarke’s (2006)
220 six guidelines for data driven analysis. The first step consisted of inductive open coding of
221 meaning units. Each transcript was coded line-by-line in initial codes, staying close to the
222 data. In the second step, we reread the initial codes, and grouped them into categories by
223 using a saturation method of creating categories until all units were properly fitted in a
224 category. The third step consisted of rereading the categories, seeking overall themes that, in
225 turn, we reviewed, reflected upon, and renamed. In the fourth step, we used a comparative
226 approach, and compared and analyzed all of the data material (e.g., thematic structure, quotes,
227 field notes, reflective logs, debriefing notes) across different contextual layers (see Table 1).
228 In this process, personal narratives of each performer’s TD story were created (see the
229 appendix, Table A2). In the fifth step, we analyzed the material deductively in relation to the
230 research question and relevant motivational theory. Multiple motivational frameworks
231 (achievement goal theory, passion theory, SDT, flow, and perfectionism) were considered. In
232 the sixth step, we organized the data into a meaningful structure, to present the results.

233 **Rigor and quality.** To enhance reflectivity and critical reflection, we used several
234 strategies influenced by recent recommendations (Finlay, 2002; Hammersley, 2007; Smith &
235 McGannon, 2017). First, to increase honest and authentic accounts when generating data, the

Motivational Processes among Norwegian Elite Performers

236 interviewer tried to empower the other, and create safe settings (Sparkes & Smith, 2014).
237 Second, active use of paraphrasing and member reflections invited participants to reflect and
238 comment on the interviews. Third, a log of the interview setting (e.g., communication flow,
239 power distribution, emotional moods, and the unsaid) functioned as field notes. Finally, we
240 utilized continuous peer debriefing sessions in the research team in an attempt to enhance
241 insight, ethical responsibility, and nuanced perspectives in the data analysis (Smith &
242 McGannon, 2017). As the authors had extensive applied experience in the arts (the first and
243 second authors) and sports (the third author), this tool worked well in engaging the
244 researchers to nuance comparative and applied perspectives, and to bridge theory and
245 practice. We acknowledge that nonlinear ongoing interactions among theory, data, and
246 methodological strategies shaped the findings, and that other interpretations are possible.

247

Results

248 We organized the presentation of results in line with the thematic structure that
249 emerged in the analysis process presented in Table 1, starting outside in, from generic to
250 individual layers. For the sake of brevity, the more complex individual perspectives are
251 documented in the appendix (see Table A2), and only the general patterns are reported here.
252 To enhance authenticity in the text, direct quotes are used in each section, marked by the
253 participant's number and domain (*m* = music; *d* = dance; *s* = sports).

254 [Table 1 about here]

255 TD Learning Conditions

256 **National layer: The Norwegian way.** The performers reported that they perceived the
257 Norwegian TD style to be distinct and unique:

258 I have been quite a lot in the music context abroad, where I have felt the culture as
259 very different. Where there is a lot of ego and competition, and you have to be very

Motivational Processes among Norwegian Elite Performers

260 tough to be able to survive. In order not to be held down . . . I think it is almost too
261 good in Norway . . . it is so safe and nice. (2m)

262 All performers had been placed in age groups with fewer than 10 students. They described
263 being part of small, exclusive, student-centered, and unique groups. One musician stated, “It
264 is so small here, few employees, a small administration, so it had to be more of a
265 collaboration . . . I thought it was nice, it didn’t feel like a school, it felt more like a big messy
266 family” (2m). The performers reported mostly authoritative teachers and coaches (high
267 demands, personal support; Walker, 2008), including positive memories of being cared for,
268 seen, and supported: “He was very aware of my situation, and expressed that I could come to
269 him at any time with any type of problems. He was very warm; he was like a father to all his
270 students” (2m). Some performers (5d and 8s) criticized the Norwegian way as “too nice” for a
271 TD program. A dancer said, “I felt that it was a bit too much ‘cuddling’ . . . it was rather too
272 much than too little appraisal I think” (5d). Other performers (3m, 7s, and 8s) experienced
273 their teacher or coach as more authoritarian (controlled and distanced; Walker, 2008). They
274 described a system that expected obedient students who adapted to the system, and faced
275 negative consequences when challenging or actively opposing the training regime. As a
276 musician explained about trying to suggest a more creative path in contrast to the traditional
277 way: “I had the feeling they didn’t want me to be there . . . I felt they didn’t get me . . . I really
278 wanted to start develop my own ideas . . . but I had to adjust to their system” (3m).

279 Being part of small groups also enhanced relatedness between peers, something all
280 performers highlighted as positive and motivating. A swimmer said, “We were just four
281 swimmers in each class, it made us very close, and we shared a lot of experiences” (9s).
282 Performers in all domains stressed that the way they shared their passion nurtured their
283 motivation: “Young people who were just like me, loving playing music. I realized that I was
284 not alone. It was very inspiring and motivating” (2m).

285 **Elite TD layer.**

286 *High-performance deliberate practice.* The performers described their elite programs
287 as focused on TD and professionalization, aiming to educate top performers: “The school was
288 the closest you came to professional life at that age level. You couldn’t find any better place
289 to develop your talent” (8s). They described exceptional teachers and coaches, with extensive
290 knowledge and experience, who contributed fundamentally to their learning and development
291 process. A musician stated, “Well, it was a good place to be if you wanted to get, to gain a lot
292 from it as a child, doing it a slightly serious way” (1m). The schools provided structure,
293 routines, and systematic development plans. For young performers living away from home,
294 the well-structured school system helped create routines and safe frameworks in which to
295 evolve: “It was a very good system, well organized . . . It was such a system that took care of
296 us all the time” (8s).

297 These TD schools were also described as highly performance-oriented (Roberts,
298 2012), with high expectations, and demands to push performers to reach their potential:
299 “When I was there, I was pushed a lot. We worked so well; effective and intensely and we
300 joined in on a lot of events” (1m). Performers described a culture that focused on and favored
301 “the best.” All had experienced or witnessed discriminatory behavior based on effort,
302 competence, and success; granting more attention and advantages to the most dedicated and
303 successful “star” students: “It was a lot of favoritism and stuff, I felt, from the top” (6d).

304 All performers reported relatively early specialization and long-term participation.
305 Many (6 of 9) also had families who participated actively in the fields (e.g., former
306 performers, or coaches or teachers), and practically grew up within the practice community.
307 For instance, a swimmer stated, “It was the one thing one did in my family” (7s), and a dancer
308 said, “I grew up in the Opera house . . . I watched my mother at work, sat in the wardrobe,
309 played with her pointe shoes, watched her perform at stage . . . there was no other alternative”

Motivational Processes among Norwegian Elite Performers

310 (5d).

311 ***Controlling learning conditions.*** The performers perceived the teachers and coaches
312 were authorities holding a gatekeeper position, often having been successful performers
313 themselves: “I really had such an excessive respect for the coach . . . It was more authoritarian
314 when I arrived at the talent school . . . I was afraid to make mistakes” (8s). The teachers or
315 coaches became important people to develop a relationship with, whereas revealing
316 incompetence, weakness, or disloyalty, or disappointing them, was something the participants
317 had feared. The latter could hamper their social position and their chances of developing, as a
318 musician stated: “You noticed which orchestra you were allowed to take part in, and what
319 events and concerts you were selected for. . . I think that it surely was not fun to be there if
320 not being at a certain performance level” (1m).

321 The TD schools in all domains were perceived as being teacher or coach led, operating
322 within structures of inherited systems and inflexibility. A swimmer said, “There was very little
323 dialogue. The coaches had dialogues, but I was not included in them” (7s). Combined with the
324 teachers’ and coaches’ role as authority figures and gatekeepers, the power distribution was
325 perceived as unequal. The performers described a practice of following instructions, being
326 highly disciplined and hard-working, and showing no disagreement: “You are raised not to
327 answer back, not to criticize or to ask questions. You do as you are told, even if you disagree”
328 (5d). The performers told many stories about blindly doing, and adjusting to the system, but
329 regretted, in retrospect, not being able to be more self-determined. A swimmer stated, “I only
330 followed the scheme as a slave, without asking any critical questions” (8s).

331 Despite domain commonalities, nuances were also evident, regarding how the
332 controlling conditions were manifested. The controlling conditions in swimming and ballet
333 seemed to be interwoven in given structures and teacher- or coach-initiated activities, based
334 on predetermined and time-consuming methods and routines for training, eating, resting, and

Motivational Processes among Norwegian Elite Performers

335 sleeping. In music, however, performers were expected to dedicate significant amounts of
336 time to individual practice, with occasional one-to-one instruction and collective orchestra
337 attendance. Thus, the musicians were more able to self-regulate, and decide when and how to
338 practice. However, the performers still felt that their teachers indirectly controlled them, by
339 judging the quality and quantity of the performers' practice: "It could have been more focus
340 on the learning process . . . I felt pressure from the teacher and that we didn't have time to
341 stay in the process" (3m).

342 **Arts-specific layer: Distinct traditions and beliefs systems within the arts.** The
343 ballet and music performers reported aspects that were not present in the swimmers' accounts.
344 Operating within experience-based conservatoire traditions, the performers reported a tacit
345 knowledge culture. A dancer said, "I experienced it here as well [in the ballet company], that
346 dancers don't have any vocabulary; dancers don't speak" (4d). It was as if the dancers'
347 identities were expected to be "invisible," without revealing any individual or self-determined
348 character: "of course, classical ballet is a heavily disciplined activity . . . but I just think that
349 you should be able to show some character as well, even though you're a ballet dancer" (4d).
350 This affected the way the dancers and musicians expressed the identity and core values
351 inherited in "being a dancer/musician." When asked what characterized a top performer in
352 their field, the dancers and musicians emphasized values such as modest, respectful,
353 disciplined, and loyal, whereas swimmers spoke of being goal-minded, independent, strong,
354 and enduring. Overall, aligned with these core values, the dancers and musicians expressed
355 more modesty (e.g., doubts about, as well as underestimation of, own competence) and
356 extreme discipline (e.g., expressed as perfectionistic tendencies).

357 Driven by a desire to express deep emotions, move others, make a difference, or fulfill
358 a higher existential meaning, artistic activity appeared to be an important motivational force: "I
359 believe it is the self-expression. An opportunity to personally evolve . . . the love for the

Motivational Processes among Norwegian Elite Performers

360 music and connect with your deep emotions” (3m). Moreover, many of the dancers and
361 musicians described the artistic processes as a gateway to flow, which helped focusing
362 beyond technique and personal achievement, instead centering on being in the moment: “It’s
363 kind of a state that you enter . . . I arrive in the morning and then ‘disappear’ until the
364 afternoon. Not until then do you have time to check your mobile phone or something. It is
365 such a lovely experience” (4d). In fact, all performers, not just the dancers and musicians,
366 expressed striving and longing for flow, a state they described as when their bodies just
367 delivered the task, let go of their mind, and became totally absorbed in the performance:
368 “Then I might be able to lose myself in it. Then it may be physically exhausting and
369 everything, it doesn’t matter . . . It’s so wonderful” (4d).

370 **Performers Motivational Processes**

371 **Individual layer.**

372 *Motivational characteristics.* The performers started out with different motivations.
373 Several (1m, 3m, 4d, 7s, and 9s) reported an inner love and drive, exemplified by an
374 musician: “I always liked to rehearse . . . I liked the sound, and I really liked the music made
375 for violins” (3m). All performers expressed some degree of extrinsic motivation. For instance,
376 some participated in their activity to outperform others, or gain status (i.e., external
377 regulation); “I liked to be good at something and to demonstrate competence, like ‘showing
378 off” (2m). Others gave examples of how they participated to get conditional approval from
379 their family (i.e., introjected regulation): “I think everyone expected that I loved dancing . . .
380 but I got more motivated in trying to not disappoint anyone, and I wanted to fulfill being that
381 typical ‘ballerina” (5d).

382 *Motivational experiences and implications.* In the interaction with the motivational
383 conditions set by the TD schools, the performers reported that their motivation was fueled,
384 and challenged, in many ways. Most had been identified as gifted at a young age. In the

Motivational Processes among Norwegian Elite Performers

385 performance-oriented TD environments, the performers' gifts were nurtured, and the
386 performers expressed that it was important to be the best, and to maintain their leading status
387 in the group (i.e., external regulation): "I did like that feeling of being the best. I think it
388 motivated me to push myself further in order to keep that position" (5d). This also gave rise to
389 feelings of pressure and stress, of being controlled, and of having to live up to expectations.
390 The same dancer stated, "From the age 13 to 16 . . . I didn't want to dance at all, but I wasn't
391 allowed to quit, because I was an identified talent" (5d).

392 The high-performance deliberate practice provided by the TD schools was another
393 important factor affecting the performers' motivation. Mostly, the performers expressed
394 gratitude to their school and the systems, and were proud of being a former student. They
395 reflected that the schools, by offering acceleration and enrichment, likely enhanced their
396 chances of professional success. A musician said, "I really feel that [if] I hadn't been a
397 musician, I [wouldn't have] chosen that road without the joy and success I experienced,
398 without all I have learned from that school" (1m). The participants also expressed that the TD
399 schools contributed to set a more professionalized standard of deliberate practice. The
400 performers reported that during those years, they realized that hard work, discipline, and
401 thoroughness, the ability to immerse oneself, and prioritize, were important attributes of
402 success (i.e., integrated and identified regulation). A swimmer said, "It's about doing what it
403 takes even if nobody watches . . . you can't lean back and believe that the success will come
404 by itself" (9s). Moreover, being socialized within such unique domain cultures (e.g., identified
405 motivation), affected the way they reported dealing with aspects of the controlling conditions.
406 Many of the performers expressed support for the system, and reported experiencing the
407 controlling conditions as culturally meaningful: "It is just the way things are in classical
408 ballet, when you take such an education" (6d). Thus, their submission to the system,
409 internalized rather than externally controlled, was experienced as voluntary, and in line with

Motivational Processes among Norwegian Elite Performers

410 their own values and beliefs; thus, partly self-determined. Overall, being within such positive
411 circles of hard quality work, mastery, and enjoyment were expressed as a motivation boost:

412 Those years contributed to build a fundament . . . It set a standard for what I knew I
413 could accomplish, also personally. It was nice gaining those results. It was important
414 as a “storage of self-esteem” . . . it equipped me with a motivation that grew larger and
415 larger . . . already back then, I decided to aim for the Olympics. (9s)

416 The participants revealed motivational adversity as well. They told stories of fear of
417 failure, feelings of pressure and high expectations, and of not being the best and favored
418 student. Especially performers with less robust motivation (i.e., introjected and external)
419 reported more challenges and frustration when faced with adversity (e.g., failure, stagnation,
420 injuries, and overtraining). A swimmer said, “It was such a feeling of failure . . . and it made
421 you very frustrated, both at practice and in competition” (7s). They also reported fluctuating
422 motivation. One swimmer described stagnation periods: “It was several days that I skipped
423 some training, and didn’t have the energy” (7s). The inner love for the activity seemed to have
424 faded: “Sometimes it is actually very difficult to find the motivation to perform. Now it is
425 definitely work, and not leisure” (4d). In contrast, the performers who possessed autonomous
426 motivation coped better during periods of failure and stagnation, such as the musician who
427 said, “I tried to look at it [failure] in perspective. I think I tried to learn and evolve from the
428 experience, and not just be upset” (3m). Additionally, these autonomously motivated
429 performers reported more enduring motivation: “I would say that I usually don’t give up . . . I
430 work towards my goals, until I reach the task at hand” (3m).

431 The performers reported frustration when faced with a controlling teaching or
432 coaching style. Even one of the most intrinsically motivated performers (3m) expressed
433 frustration with the rigid and controlling conditions: “I think it made me less motivated . . . I
434 believe I could have developed more . . . I didn’t feel free on the stage. It made me insecure

Motivational Processes among Norwegian Elite Performers

435 and stiff” (3m). The more externally driven performers’ (1m, 2m, 4d, 5d, 6d, 7s, and 8s)
436 frustration was even more visible. They reported competence frustration (e.g., stagnation,
437 failure, or doubts), for instance, expressed in fear of failure: “to perform in front of others, to
438 play for others. Such performance things . . . I have always been afraid, because I know how I
439 react when I fail. That it is terrible. Very difficult to leave behind and forget“ (1m).
440 Ambiguity about one’s own ability and competence was also reported: “All the time, I a
441 feeling of doubt in my head; ‘maybe this isn’t meant for me?’ Today, still, I have a constant
442 feeling of doubt” (2m). For some of the dancers and musicians (1m, 4d, and 5d) competence
443 frustration was manifested in perfectionistic tendencies: “I thought that is was only perfection
444 that counted. I did experience mastery as well, but mostly I experienced failure” (4d). For
445 instance, some discussed strategies as overstriving: “The effort I had to do to make progress
446 each day . . . It has been very all-encompassing . . . It occupies so much time” (4d), other of
447 obsessiveness: “It was seldom fun before . . . maybe 5–10% enjoyable, and 90% kind of
448 intense feeling of ‘this is my thing, this is just what I have to do’” (5d).

449 The performers revealed that close relationships (e.g., teachers or coaches and/or
450 peers) affected their motivation very positively. By offering the performers care and support,
451 teachers or coaches provided a safe haven for performers to develop in: “It was so safe and
452 nice . . . I found both the needed motivation and self-esteem and all the technical help I
453 required” (2m). Additionally, autonomy-supportive teachers could boost intrinsic motivations,
454 as stated by a musician:

455 He made me believe in myself, that I was a unique musician, that had something
456 unique to express, and that it was really worth it, that I could make it . . . it made me
457 want to practice far more than ever before. (2m)

458 Finally, the artistic processes were something the dancers and musicians reported as
459 highly positive and motivating. Described as a gateway to flow, artistic processes were

Motivational Processes among Norwegian Elite Performers

460 experienced as deeply meaningful, thriving, and self-realizing (i.e., intrinsic motivation): “I
461 actually don’t like to practice dance, the training. No, I like the artistic processes . . . to
462 express, gestalt a character. I like the theater as an institution. I find it thrilling and exciting”
463 (4d). However, the performers explained that flow was hampered when they focused too
464 much on technical skills, and on reaching peak performance (i.e., external regulation). As a
465 swimmer said, “My best races when I was a junior, they just floated on their own. My body
466 just did it. Later on, I just overanalyzed everything and tried to find that old good feeling, so I
467 started speculating, analyzing, and pondering” (8s).

468 *Well- and ill-being experiences.* The analysis revealed that the performers, in line
469 with their differentiated motivational experiences outlined above, also reported distinct
470 motivational implications (for details, see the appendix, Table A2). In general, the complex
471 motivational processes experienced while attending the TD schools had a wide range of
472 implications. All the performers reported some aspects of well-being (e.g., self-realization,
473 belonging, and positive affect), exemplified by this musician: “I experienced joy through the
474 music, and deep feelings . . . and it was fulfilling to share these experiences with others, being
475 part of a thriving environment, and make close friends” (1m). Elements of ill-being were also
476 present (e.g., performance anxiety, stress, and negative affect), reflected, for instance, in the
477 exhaustion of a swimmer: “The conflict with the coach made me exhausted . . . I was
478 extensively injured and sick in periods” (7s). Or in perfectionism and performance anxiety
479 echoed by a dancer: “I found it uncomfortable being on stage . . . I didn’t want anybody to see
480 me . . . I felt that there was so much that was not good enough” (5d). However, there were
481 clearly individual differences in how the overall TD story was perceived: that is, if it was a
482 story mostly of thriving, striving, or just of surviving. Performers with aspects of controlled
483 motivation reported a wider array of, and in some cases, more severe, risk factors and
484 personal costs. In particular, these performers reported struggling more with low self-esteem

Motivational Processes among Norwegian Elite Performers

485 (1m, 2m, and 5d), perfectionism (1m, 4d, and 5d), obsessiveness (5d and 8s), performance
486 anxiety (1m, 4d, 5d, 6d, 7s, and 8s), negative affect (6d and 7s), exhaustion (7s and 8s), and
487 eating disorders (5d). In contrast, the performers with aspects of autonomous motivation
488 emphasized aspects of well-being to a greater extent, including self-realization (3m, 4d, and
489 9s), flow (2m, 3m, 4d, 7s, and 9s), enhanced self-esteem (9s), positive affect, and vitality (1m,
490 2m, 3m, 4d, 7s, and 9s).

491 **Discussion**

492 In this study, we aimed to explore the motivational experiences of elite performers.
493 Although we should be cautious drawing conclusions based on interview data from a single
494 study, the overall patterns identified in the analysis led to stimulating knowledge and
495 reflections. In this discussion, we reflect on how the performers' TD learning conditions
496 related to their motivational processes and experiences of well-being.

497 **TD Manifested Within the Arts and Sports**

498 **High-performance TD cultures.** The TD schools in music, ballet, and sports shared
499 many characteristics. For instance, all facilitated autonomous motivation (e.g., the Norwegian
500 way, close relationships, student-centered, and artistic dimensions), and controlled motivation
501 (e.g., performance-oriented, discriminatory behavior, and a controlling teaching or coaching
502 style). However, when the ambitions of demonstrating excellent performances seemed at
503 stake, attaining such a performance seemed the most important, no matter the psychological
504 costs, thus, resulting in a culture that was more predominantly controlled. These performance-
505 oriented and controlled practices unfolded as two-sided: They could provide a boost of
506 competence development, underpinned by high demands, hard work, quality teachers or
507 coaches, and professionalization. For ambitious performers aiming for the top and operating
508 within a positive cycle of development (e.g., mastery, success, flow, and high self-esteem),
509 this seemed to work well, providing a strong nurturing source of motivation. Competence

Motivational Processes among Norwegian Elite Performers

510 seemed to be the core “currency” within these contexts, aligned with findings from another
511 recent Norwegian study (Stabell, 2018). However, in the face of failure and adversity, the
512 performance-oriented culture revealed a down-side. As the very essence of becoming an elite
513 performer is about demonstrating superiority, the performers’ positions and future
514 possibilities were experienced as conditional on achieved competence and success. Stagnation
515 and failure were challenges that clearly put the performers’ quality of motivation to the test,
516 as other studies also have highlighted (Chiviacowsky, 2014; Mahoney et al., 2014).

517 **Different facets of controlling conditions.** In addition to the high-performance TD
518 culture, controlling conditions turned out to be quite common across the domains. The
519 performers revealed that there were nuances in how control unfolded within the three
520 domains. For instance, in ballet and swimming, control appeared to be more directly
521 interwoven in rigid structures and routines, while in music, control appeared more indirect,
522 found in the one-to-one relationship with teachers who monitored and judged the self-practice
523 top-down. This result is in line with results from other studies that revealed students often
524 experience a lack of autonomy, as they are taught *what* to practice rather than *how* to practice
525 (Burwell & Shipton, 2013; Gaunt, 2008; Hatfield, 2016). The distinct traditions and belief
526 systems in music and ballet, seen as tacit, top-down, and with skewed power (Nielsen, 2006;
527 Stabell, 2018), seemed to also indirectly control the dancers and musicians into being more
528 obedient and loyal than the swimmers. An interesting observation that is perhaps linked to
529 these findings was that only dancers and musicians exposed self-critical perfectionistic
530 tendencies.

531 In general, controlling teaching or coaching styles appeared to socialize performers
532 into being less self-determined (i.e., introjected and external regulation). Paradoxically, a lack
533 of self-determination and authenticity are negatively associated with creative and artistic
534 development (Lacaille et al., 2007; Smith, 2002; Subotnik et al., 2011). Moreover, artistic

Motivational Processes among Norwegian Elite Performers

535 processes might be a source of intrinsic motivation, and a gateway to flow (Nakamura &
536 Csikszentmihalyi, 2009). Other studies of dancers' (Hefferon & Ollis, 2006) and athletes'
537 (Swann et al., 2017) flow experiences found that supportive, secure, and open learning
538 environments (e.g., nonjudgmental, creative, and open goals) are important flow-enhancing
539 factors. Thus, controlling conditions might hamper or reduce flow experiences, intrinsic
540 motivation, and development of artistic competence. Further research, investigating
541 associations among personality, motivation, artistic processes, and performance in the art
542 domains, could be valuable.

543 Finally, the imbalance between a controlling teaching or coaching style and close
544 relationships embedded in the autonomous Nordic egalitarian model (Arnesen & Lundahl,
545 2006; Ronglan, 2015) turned out to be somewhat contradictory. The closeness appeared to
546 encourage relatedness and autonomous motivation. However, given the power teachers and
547 coaches held over the performers, the picture looked different. Some performers reported that
548 the benefits of a close and supportive relationship were contingent on loyalty and conformity.
549 When personal relationships become very close, they may camouflage contingent controlling
550 mechanisms, and function as a concealer of power and conditional control (Soenens &
551 Vansteenkiste, 2010). Studies of children (Soenens & Vansteenkiste, 2010) and youth elite
552 athletes (Jacobs, Smits, & Knoppers, 2017) experiencing indirect control have shown them
553 trapped in ambivalent and conflicting relationships, with outcomes of emotional distress and
554 ill-being. The present results were in line with these studies, as they showed that such
555 controlling conditions seemingly nurtured ambivalent experiences that challenged the
556 performers to navigate between loyalty (to leaders, values, tradition) and their own inner
557 needs and well-being. Thus, the role of teachers and coaches, between being quite personal
558 and holding power, requires further research and critical reflection, perhaps especially when
559 embedded in egalitarian contexts.

560 **Implications for Motivation and Well-Being**

561 The performers' "success stories" were related to motivation and well-being in
562 different ways, revealing the innate complexity in developing excellence, as found in other
563 TD studies (Chua, 2014; Larsen, Alfermann, Henriksen, & Christensen, 2013). The
564 performers navigated within and between several contextual layers that provided
565 contradictory and multifaceted experiences. Overall, the performers reported motivational
566 profiles that ranged from predominantly self-determined, via multidimensions, and
567 predominantly controlled. These individual motivational profiles mattered, as their blends of
568 motivational regulation (e.g., intrinsic, identified, introjected, and external; Ryan & Deci,
569 2017) were associated with more or less robust and healthy TD pathways. Specifically, and as
570 recently suggested by Portenga, Aoyagi, and Cohen (2017), performers regulated by
571 autonomous motivation seem to engage in their performance development in a more joyful,
572 robust, and healthy way, while showing less dependence on the given conditions.
573 Interestingly, in one swimmer, the combination of strong autonomous motivation, success,
574 and high self-esteem not only affected the performer's development but also underpinned the
575 power to negotiate and influence the contextual conditions in a more self-determined
576 direction. Thus, the interaction emerged as reciprocal.

577 In contrast to how elite performers have sometimes been described in the literature
578 (Jordet, 2016; MacNamara et al., 2010), many of the performers in the present study lacked an
579 original intrinsic motivation, and only two performers expressed a predominantly autonomous
580 motivation throughout their careers to date. In line with SDT tenets (Deci & Ryan, 2017;
581 Vansteenkiste & Ryan, 2013), analysis showed that the more controlled, the higher the
582 vulnerability (e.g., contingent on success and perfectionistic tendencies), and in turn, the more
583 the maladaptive outcomes were (e.g., negative affect, exhaustion, and performance anxiety).
584 A darker side of TD was especially evident in the performers who appeared to lack

Motivational Processes among Norwegian Elite Performers

585 autonomous motivation and autonomy-supportive environments. According to SDT, when
586 regulated by controlled motivation, the self might become ignored, suppressed, and at risk of
587 being diminished (Ryan & Deci, 2017; Vansteenkiste & Ryan, 2013). For instance,
588 perfectionism may represent such suppression. As a strategy of overstriving to compensate for
589 low self-worth, perfectionistic performers strive for a perfect “ideal-self,” and suppress their
590 authentic self (Hall & Hill, 2016; Hill, 2016). In a debilitating circle of negative emotion
591 (frustration, negative affect, and stress), cognition (guilt, shame, and performance anxiety),
592 and behavior (rigidity, obsession, and eating disorders), the performers’ self seemingly will
593 become diminished. Several performers in the present study bore witness to unpleasant roads
594 to success, and partly mirrored findings from other sports domains (Cavallerio, Wadey, &
595 Wagstaff, 2016; Jacobs et al., 2017).

596 As the participants in this study were all successful, these results deviate from the
597 discourse of TD as positive development, driven by self-actualization, intrinsic motivation,
598 and psychological comfort. Instead, the results may indicate that adversity, striving,
599 imbalance, and even perfectionism, self-criticism, and emotional despair can be means to an
600 end in preparing for greatness (Subotnik et al., 2011). Even if these results are clearly at odds
601 with evidence from SDT-based research and pedagogical ethics, the results are similar to
602 those in other studies of dance, music, and gymnastics that have raised awareness of unethical
603 learning conditions, the prevalence of psychological, and physical, risk factors, and
604 compromised mental health (Cavallerio et al., 2016; Nordin-Bates & Abrahamsen, 2016;
605 Pecen et al., 2018). Thus, it would appear that the performers’ success came at a relatively
606 high price in terms of compromised well-being. Even less adaptive motivational experiences
607 might have unfolded with less successful performers (e.g., who faced more adversity and
608 consequently dropped out), something to explore in future studies of TD. Thus, in our view, it
609 might be wise to broaden the definition of success, to include sustained positive psychological

610 functioning alongside reaching excellence when facilitating TD, as recently addressed (Hill,
611 MacNamara, Collins, & Rodgers, 2016; Ivarsson et al., 2015).

612 **Strengths and Limitations**

613 The richness of the data (e.g., the complexity and the contextual layers) and the
614 sociocontextual comparative angle are strengths of this study. We believe the qualitative
615 approach disclosed unique motivational processes and TD pathways, extending SDT and TD
616 literature. However, we must address certain limitations. The study was retrospective (looking
617 back, knowing “how it all turned out”), and the small sample targeted performers’ perceived
618 experiences (e.g., not triangulated with observations or leaders’ perspectives). Thus,
619 knowledge claims, especially regarding motivational conditions and potential domain
620 differences, should be seen as preliminary. Therefore, we encourage cautious interpretation of
621 the findings, and in relation to other relevant studies, as well as additional studies in these
622 contexts.

623 **Concluding Remarks**

624 This study examined the TD learning conditions, motivational processes, and
625 implications of Norwegian elite performers in music, ballet, and swimming. The interaction
626 between conditions (*where* you are) and personal characteristics (*who* you are) affected the
627 performers’ motivation and psychological functioning (thriving, striving, and/or surviving) in
628 different ways. The performers navigated within and between several contextual layers (i.e.,
629 egalitarian values, high-performance deliberate practice, and controlling conditions) that
630 provided contradictive and multifaceted motivational experiences. However, the quality of the
631 performers’ motivation mattered, as performers regulated by autonomous motivation reported
632 being more psychologically robust and less dependent on the given conditions, and
633 experiencing a wider range of thriving.

Motivational Processes among Norwegian Elite Performers

634 From an applied perspective, it is important to be cognizant of the innate complexity
635 in developing excellence and potentially negative outcomes from aspects of controlling
636 conditions, such as increased psychological vulnerability, controlled motivation,
637 perfectionism, and performance anxiety. However, enhancing autonomous motivation and
638 flow, supportive relatedness, as well as focusing more on creativity and artistic dimensions
639 when teaching, may counter these risks. In conclusion, the findings are critical reflections on
640 Norwegian TD in music, ballet, and swimming, with clearly identified potential for
641 improvement, furthering high-quality educational practice alongside healthy motivational
642 processes.
643

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Motivational Processes among Norwegian Elite Performers

Table 1

Thematic Structure

	Contextual layer	Theme	Category
TD learning conditions	National layer	The Norwegian way	Exclusive & student centered Teacher/coach support Peer support
	Elite talent development layer	High-performance deliberate practice	Talent focus Structure & system Top teachers/coaches in the field High expectations and demands Favoring the "best" Early socialization & professionalization
		Controlled learning conditions	Authoritarian Rigid
	Art specific layer	Distinct traditions and beliefs systems within the arts	Tacit knowledge culture Artistic dimensions
Performers' motivational processes	Individual layer	Motivational characteristics from childhood (entrance to TD)	Intrinsic (inner love & drive, interest) Introjected (family expectation, internal pressure, conditional approval) External (status, winning, external pressure)
		Motivational experiences at TD years	Identified as gifted Mastery and competence development (learn, develop, improve, reach goals, win**) Flourishing being part of high quality practice Flow experiences (in training, bodily, emotionally*) Be seen and get approval (from teacher, peers and audience*) Challenges (failure, stagnation, lack of flow, lack of motivation, lack of status, injuries, lack of coping strategies, body image pressure)
		Motivational implications	Disciplined and conscientious Ability to immerse oneself, prioritize Autonomous behavior regulations (intrinsic, integrated, identified) Controlled behavior regulations (extrinsic, introjected) Competition instinct and goal driven** Perfectionistic and highly self-critical* Ambivalent perceived competence Underestimating own competence*
Well-/ill-being		Well-/ill-being experiences	Thriving (self-realization, socially contentment, high self-esteem, positive affect, vitality, flow) Striving (performance anxiety, perfectionism, lowered self-esteem, negative affect) Surviving (obsessiveness, eating disorder, exhaustion)

Note. *only artists; ** only athletes.

Appendix. Performers' characteristics, motivational processes and their experienced well-/ill-being

Table A1

Descriptions of Participants

Participant	1m	2m	3m	4d	5d	6d	7s	8s	9s
Domain	Music	Music	Music	Dance	Dance	Dance	Sport	Sport	Sport
Gender	Female	Female	Male	Male	Female	Male	Female	Male	female
Age	41	27	27	31	35	25	32	35	33
Entrance age	9	2	5	6	7	10	6	5	4
Hours / week	25	38	40	43	37	40	28	28	30
Years in profession	13	3	2	10	8	6	10	6	10

Table A2

Individual motivation TD pathways of Participants

	Motivation childhood	Motivational experiences in TD practices	Motivational regulations TD years →	Well-/ill-being implications
3m music; male	Inner love & drive; "I have always liked to rehearse ... I liked the sound, and I really liked the music made for violins"	Mixed experiences. Mostly mastery, enjoyment and positive development in early years, but experienced some pressure and expectation due early participation in high-performance environment. Experienced some striving and challenges at TD school; moved away from home, conflicting relationship with teacher, frustration with authoritarian system and lack of use of creativity.	Predominantly autonomous; intrinsic, integrated- and identified; "I like to play the violin and seek that enjoyment to stay motivated"; "[when failing] I tried to look at it in perspective and learn from it and bring on something from the experience, and not just be upset"; "I usually never give up, I work as long as it takes to reach the goals"	Performance anxiety; [at TD school] "I didn't feel free on the stage. It made me insecure and stiff"; Performance level; [at TD school] "I believe that it is important to thrive and enjoy yourself. Or else it would be difficult to express through the music"; Self-realization; "I express myself and my deep emotions through music, express the personality through the playing"
9s sport; female	Inner love & drive; "I have always enjoyed water. To play and swim, and I think it was the speed and the bodily sensation in the water that attracted me. I was just fond of being in water"	Mostly mastery, enjoyment and positive development all the way, especially in TD school years; a positive circle of development with mastery, relatedness (peers & coaches, autonomy; "I felt I had control, that I sat in the driver's seat ... I believe I had so high self-esteem then, that it was easy to make a decision"	Predominantly autonomous; intrinsic, integrated- and identified; "It's about doing what it takes even if nobody watches ... you can't lean back and believe that the success will come by itself"	High motivation, self-esteem, positive affect and vitality; "It was nice gaining those results. It was important as a storage of self-esteem ... it equipped me with a motivation that grew larger and larger"; "I think I actually never was afraid or stressed towards failing"; "you have to enjoy yourself, be happy and have fun in order to succeed"
1m music; female	Extrinsic (pressured, satisfy expectations from family), "I grew up with classical music ... it was the only music that counted, everything else was garbage ... I learned to like it" But also intrinsic; "I liked the music and enjoyed music"	Mixed experiences. Struggled with expectations and pressure from family and teachers, seeking external approval, contingent perceived competence. High satisfaction of the need for relatedness all the way. Mastery and high performance level nurtured the need for competence, even though it was external and contingent.	Multidimensional; intrinsic, identified- and introjected "I was never satisfied, more a doubter"; "I find it very hard to maintain motivation and to prioritize the cello these days"; "The interplay together in an orchestra, I found it fantastic ... it was a place that I really belonged ... it was so fun"	Performance anxiety; "I have always been afraid, because I know how I react when I fail. That it is, it's terrible"; Lowered self-esteem; "I was very shy, anonymous and reserved. I didn't like the attention or to be out in front ... I found no joy in just being myself" Well-being; "I experienced joy through the music, and deep feelings ...and to share these experiences with other, being part of a thriving environment, make close friends."
2m music; female	Extrinsic (status, satisfy expectations from parents); "I liked to be good at something and to demonstrate competence, like 'showing off'; "In the beginning, it was easy. There were no expectations, I was good and it was fun"	Mixed experiences. Mostly challenges and striving in early years before Norwegian TD school. Expectations from parents, educated partly abroad with controlling and authoritarian teachers; "it was so hard, I was crying after every lesson, each week, it experienced it very egalitarian and student-centered, a fantastic and nurturing teacher, supporting peers.	Multidimensional; identified- and introjected; "I started developing doubts if I would make it or if it was worthwhile"; "a motivation has been to be able to express myself through music"	Lowered self-esteem; "The feedback I got was that I didn't express myself enough, that I lacked a personality, a character in my playing, that I didn't seem to know who I was and was too afraid" Well-being; the wounds I got, it was as I was patching up all the wounds ... I felt I was becoming a complete person again.
4d dance; male	Inner love & drive; "When I was a child I found everything enjoyable and fun ... the first stage experience was magical, it was a groundbreaking experience"	Mixed experiences. Mastery, intrinsic motivation, lots of playing and creativity. TD years more challenging due expectations and pressure both from outside (family, friends, teachers) and within (perfectionism). Very frustrated towards the rigid, tacit and authoritarian system. Satisfaction of relatedness all the way. Artistic processes and being able to express enhanced flow.	Multidimensional; intrinsic, identified- & introjected- regulations; "I have always strived toward perfection, even in childhood, I strive for it each day"; "The effort I had to do to make progress each day. That is something I still work on. Not to just maintain, but to actually develop each day"; "I love to express, the theatre as an institution drives me"	Perfectionism; " I did experience mastery as well, but mostly I experienced failure ... Performance anxiety; "I remember being very afraid and nervous, even in rehearsal situations" Physical anxiety; "I was afraid to be exhausted, afraid of the physical pain that follows the hard work. It is so painful" Self-realization flow: "I find the artistic processes thrilling and exiting. Moreover, I may be able to loose myself within the process".

	Motivation childhood	Motivational experiences in TD practices	Motivation regulations TD years →	Well-/ill-being implications
6d dance; male	Extrinsic (status, expectations from parent & teachers); "I was told to try classical ballet. Therefore, I did. I started at the national ballet school, and I just was stuck there; one thing led to another"	Mixed experiences. Frustration of rigid and authoritarian system, disliked and frustrated of the discrimination of "bad students". Good peer relations within and outside TD school; "a lot of frustration and a lot of mastery... either in a good or bad circle". Competence contingently satisfied / frustrated.	Multidimensional; intrinsic, identified- & introjected regulations; "I liked the challenges ... to experience a curve of development; [success] is to be able to do as told/ taught, and to be approved by leaders"; "I take it very personal when I fail!"	Increased self-esteem; "to master the difficult technique made me feel proud and good, also in the daily-life" Performance anxiety; "it has been a lot of anxiety, really bad ...both at training and performances. A lot of nightmares, it has been a lot of shit going on" Negative affect; "it brought me down a lot does times I was in a bad circle of development, it was and are really hard!"
7s sport; female	Inner love & drive, status, winning; "I found it extremely enjoyable ... I loved being in the water"; "I found it very cool to compete ... it was a deeply wish to be the best"	Mixed experiences. Mastery, intrinsic motivation, lots of playing early. TD years: frustration; conflict with coach and sickness, in turn stagnation and demotivation. "It was his [the coach] way of doing things. To me who knew that I needed other approaches, it became easier to not attend"	Multidimensional; intrinsic, identified- & introjected regulations; "I thought it was extremely fun, it was a good drive"; "I liked to win from an early age ... and I mastered early ... It gave me motivation that lasted all the way"	Performance anxiety; "When you got more experience with bad performance, it occupied a lot of your time and focus. Maybe it made you analyze stuff, and made you afraid to not perform at the expected level" Negative affect; "It was such a feeling of failure ... it made you frustrated, at practice and in competition" Exhaustion, sickness; "the conflict with the coach made me exhausted ... I was extensively injured and sick"
5d dance; female	Extrinsic (status, be approved by family); "I think everyone expected that I loved dancing ... but I got more motivated in trying to not disappoint anyone, and I wanted to fulfil being that typically 'ballerina'"	Obsessiveness and high expectations and pressure from family (external) and within (perfectionism). Never feeling satisfied (self-critical). Lack of self-determined motivation and enjoyment. Relatedness was good.	Predominantly controlled; extrinsic and introjected; "It was more that I was satisfied if I didn't mess it all up, that I didn't make mistakes visible to the audience"; "I wasn't allowed to quit by my parents because I was talented"; "All the time and effort required to be a soloist, for me, it isn't worth the effort anymore"	Low self-esteem; "Well, I often had a sense of not being good enough" Performance anxiety; "to handle when the anxiousness really kicked in, that was my biggest challenge" Eating disorder; "I became very conscious of body weight ... Always a bad conscience when I ate ... I was unusually skinny, but I remember feeling very big" Perfectionism: "I found it uncomfortable to be on stage ... I didn't want anybody to see me ... I felt that there was so much that was not good enough"
8s sport; male	Extrinsic (status, winning); "To know that I was the best, that there were no one that outperformed me. I found that very enjoyable ... I wanted that victory ritual ... I was very competitive of nature"	Mixed: Mastery, success, mastery focus and enjoyment in local club. In TD years, pressure and frustration; moved away from home, superficial relationship with authoritarian coach, obsessiveness, contingent perceived competence (stagnation as senior).	Predominantly controlled; extrinsic and introjected; "I was such a striver"; "I was not creative, more a type that follows the scheme, very loyal to the system"; "I got bad conscience if I made bad [not as coach expected]choices"	Obsessiveness; "The sport and competitive culture nurtured my extreme personality ... there was the swimming that organized and controlled my life" Exhaustion, minor depression: "Overall, it became very exhausting ... I had periods where it was hard mentally to live at the student conducts with that lifestyle ... it was mentally though"

Note. The performers are ordered relative to their quality of motivation, ranged from most adaptive (intrinsic, autonomous) to less adaptive (extrinsic, controlled).

Paper II

Haraldsen, H. M., Halvari, H., Solstad, B. E., Abrahamsen, F. E., & Nordin-Bates, S. M. (2019). The role of perfectionism and controlling conditions in Norwegian elite junior performers' motivational processes. *Frontiers in Psychology*, 10, 1366. doi.10.3389/fpsyg.2019.01366



The Role of Perfectionism and Controlling Conditions in Norwegian Elite Junior Performers' Motivational Processes

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OPEN ACCESS

Edited by:

Cristina M. P. Capparelli Gerling,
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Reviewed by:

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United States
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Specialty section:

This article was submitted to
Performance Science,
a section of the journal
Frontiers in Psychology

Received: 28 February 2019

Accepted: 27 May 2019

Published: 12 June 2019

Citation:

Haraldsen HM, Halvari H,
Solstad BE, Abrahamsen FE and
Nordin-Bates SM (2019) The Role
of Perfectionism and Controlling
Conditions in Norwegian Elite Junior
Performers' Motivational Processes.
Front. Psychol. 10:1366.
doi: 10.3389/fpsyg.2019.01366

Conceptualized within the framework of self-determination theory, the aim of the current study was to investigate the relation between perfectionistic concerns and (a) controlled (non-self-determined) motivation and (b) performance anxiety through basic psychological need frustration (frustration of competence, autonomy, and relatedness), and if these relations would be moderated by controlling teaching/coaching conditions. We used a cross-sectional moderated mediation design and purposefully selected Norwegian elite junior performers ($N = 171$; mean age = 17.3; SD age = 0.94) from talent development schools, who completed an online questionnaire to report their perceptions of the study variables. Associations were examined using structural equation modeling. The results showed that perfectionistic concerns were positively associated with controlling conditions, basic needs frustration, controlled motivation, and performance anxiety. Reported controlling teaching/coaching conditions moderated the positive indirect relationship between perfectionistic concerns and (a) controlled motivation and (b) performance anxiety through competence need frustration. Specifically, these indirect associations were evident for performers reporting moderate or high levels of controlling teaching/coaching conditions. In contrast, there were no indirect associations via competence need frustration for those performers who reported low levels of controlling conditions. In conclusion, the results indicate that perfectionistic concerns appear to be a vulnerability factor that exposes elite junior performers to higher risks of entering a debilitating motivational process. This seems especially likely when exposed to controlling teaching/coaching conditions. Coaches and teachers working with elite junior performers should avoid using controlling mechanisms and instead foster autonomous functioning.

Keywords: self-determination theory, motivation, perfectionism, teaching style, controlling conditions, talent development, performance

INTRODUCTION

Elite junior performers in sport and performing art are at increased risk for poor functioning and ill-being compared to the average population, due to the unique requirements associated with reaching excellence (Hill A. et al., 2016; Mainwaring and Finney, 2017; Drew et al., 2018). This urges scholars to address risk factors (e.g., traits and conditions) to better safeguard talent development environments (TDEs). Perfectionism is such a trait risk factor found to be more common in elite performers (Dunn et al., 2012). Particularly, perfectionistic concerns (PC) are considered a vulnerability factor associated with higher levels of controlled motivation (i.e., extrinsically regulated behavior) and performance anxiety (Stoeber et al., 2007; Hill A.P. et al., 2016; Patston and Osborne, 2016). To understand why and under what circumstances elite junior performers reporting PC are at risk of experiencing controlled motivation and performance anxiety, we applied the conceptual framework of self-determination theory (SDT; Ryan and Deci, 2017). Specifically, we wanted to examine the potential roles of controlling teaching/coaching conditions and basic psychological need frustration (i.e., need for competence, autonomy, and relatedness) as explaining mechanisms.

Perfectionism is a trait defined as the desire to reach very high standards accompanied by overly self-critical evaluations (Frost et al., 1990; Hill, 2016). Perfectionistic concerns (PC), a sub-dimension of perfectionism, are characterized by combinations of concern over mistakes, doubts about actions, and fear of negative social evaluation, regardless of achievements (Hill, 2016). Paradoxically, PC energize a strong motivational force to strive (i.e., focus, persistence, and discipline), yet, the rigid over-striving attitude, directed toward seeking approval, avoiding mistakes, and maintaining self-worth, also facilitates debilitating patterns of cognition, affect, and behavior (DiBartolo et al., 2004; Appleton and Curran, 2016; Patston and Osborne, 2016). Indeed, research evidence concerning PC shows consistent positive associations with a range of maladaptive outcomes, such as controlled motivation, performance anxiety, and achievement challenges (Gotwals et al., 2012; Hill A.P. et al., 2016).

Performance anxiety is defined as experienced stress before and during performance, often because of an apparent imbalance between situational demands and the perceived competence to counter the requests (Lazarus, 2000; Correia and Rosado, 2018). Performance anxiety comprises cognitive anxiety (i.e., negative self-talk, catastrophizing), somatic anxiety (i.e., increased heart rate, muscle tension), and self-confidence (i.e., doubts in one's abilities; Cox and Russell, 1999). TDEs are likely to be stressful (e.g., high expectations, social evaluation, and deselection), generally nurturing performance anxiety in both elite and elite junior performers (Patston and Osborne, 2016). Furthermore, there is support for a positive relation between PC and performance anxiety, and high levels of PC have been associated with higher risk of developing performance anxiety (Patston and Osborne, 2016). When displaying high levels of PC, the tendency to feel inadequate and self-critical constantly threatens the balance between demands and perceived competence. Moreover, PC seem to affect the cognitive dimension of anxiety most

strongly (Miller and Chesky, 2004; Walker and Nordin-Bates, 2010). The accompanying doubt, worry, and negative self-talk that follows PC when facing risk of failure, have been found to activate stress and avoidance coping strategies (Lazarus, 2000; Hill A.P. et al., 2016). Hence, performers with PC seem to lack growth-seeking and proactive behavior when confronted with stress, thereby being even more vulnerable when participating in TDEs (Stoeber and Eismann, 2007; Hill A.P. et al., 2016).

Although the relationship between PC and performance anxiety is well documented, the explanatory mechanisms involved have been understudied (Boone et al., 2014). Given that PC is considered a general vulnerability factor for a broad range of maladaptive outcomes (e.g., controlled motivation, performance anxiety, and burnout; Hill A.P. et al., 2016), focusing on more broad dynamics involved in PC might help extend the perfectionism literature. Hence, this study is building on previous studies applying the general theoretical framework of SDT (Boone et al., 2014; Jowett et al., 2016) and testing some core motivational concepts (controlling conditions and basic psychological needs) as explanations of *why* and *when* debilitating processes occur (Vansteenkiste and Ryan, 2013; Ryan and Deci, 2017).

A central tenet of SDT is that the satisfaction of the three basic psychological needs, nurtures psychological growth and well-being (Ryan and Deci, 2017). Conversely, need frustration underpins a range of malfunctioning and ill-being constructs (Vansteenkiste and Ryan, 2013; Haerens et al., 2015; Ryan and Deci, 2017). These needs are competence (feeling mastery when interacting with one's environment), autonomy (experiencing volition, and acting in accordance with one's true self), and relatedness (experiencing a mutual connectedness with others; Vansteenkiste and Ryan, 2013). When experiencing need frustration, the needs would manifest in feelings of inferiority and failure (competence need frustration), pressure and manipulation (autonomy need frustration), and distance and isolation (relatedness need frustration; Haerens et al., 2015).

A recent meta-analysis found that PC were consistently associated with need frustration (Hill and Curran, 2016). Given the ultimate goal of demonstrating outstanding performance, and the competitive nature of TDEs, failure seems at least as likely an outcome as success for elite junior performers. Hence, the need for competence seems to be especially at risk of not being satisfied in TDEs. When displaying PC, one's competence evaluation is often biased (Shafran et al., 2002); self-critical and harsh when faced with failure, and underestimated and re-evaluated when faced with success. In addition, PC are associated with a lack of reactivity patterns to cope with adversity (Flett and Hewitt, 2016). Hence, frustration of competence might be the outcome, independently of any objectively achieved results. PC are also associated with rigid and controlled behavior regulations (i.e., "must," "have to," and "should"), which might be out of line with autonomous and creative functioning (Hall, 2016; Hill, 2016). Lastly, PC are associated with obsessiveness, social comparisons, and interpersonal inflexibility (indicative of frustration of the

need for relatedness), underpinned by a narrow-minded and competitive dedication (Boone et al., 2014; Hall, 2016). As such, frustration of the three basic psychological needs seems likely to be nurtured by PC.

The negative consequences of long-term need frustration are evident in prior SDT-based studies, associated with low quality of motivation (e.g., controlled motivation) and various forms of malfunction and ill-being (Vansteenkiste and Ryan, 2013; Haerens et al., 2015; Bartholomew et al., 2018). For example, in a study focusing on resilience processes after experienced need frustration, restoration was nurtured by autonomous functioning and moderated by perceived competence (Radel et al., 2013). In light of the characteristics of PC, a proactive ability to engage in resilience processes and restore the basic needs when frustrated seems to be lacking when experiencing high levels of PC (Vansteenkiste and Ryan, 2013; Hill A.P. et al., 2016).

To date, some evidence of positive associations between PC and need frustration has been found (Hill A.P. et al., 2016). Recent studies have shown that PC, through general need frustration, were indirectly linked to symptoms of burnout (Jowett et al., 2016) and binge eating (Boone et al., 2014). Despite studies having successfully examined relations between the need for competence and motivation, performance, and well-being (Fransen et al., 2018a,b), no studies, to our knowledge, have focused on the indirect links between PC and such outcomes through each need separately. In addition, no study has tested whether such indirect associations are conditional on specific environmental aspects, such as controlling teaching/coaching style.

An important area of inquiry, suggested to extend perfectionism research (Appleton and Curran, 2016), is factors that contribute to explain the development of perfectionism (e.g., the social environment). The pressure of being perfect is proposed to originate from exposure to psychological control (e.g., manipulation through expectations, criticism, and conditional love) imposed by social agents, such as parents (Soenens and Vansteenkiste, 2010). Thus, perfectionistic behaviors seem to compensate for internal feelings of inadequacy, inferiority, and low self-worth by seeking external approval and acceptance (Eusanio et al., 2014; Flett and Hewitt, 2016). The same contingent mechanisms and patterns underlying the child-parent relationship, might be extended and re-visited in adolescence in interpersonal relationships developing in TDEs, such as those with teachers and coaches (Soenens and Vansteenkiste, 2010). Research from sport psychology has found that social agents using psychological control seem particularly important in the development of the PC aspects of perfectionism that are linked to conditional and unstable self-worth (i.e., fear of negative social evaluation and concern of mistakes; Appleton and Curran, 2016; Hill, 2016).

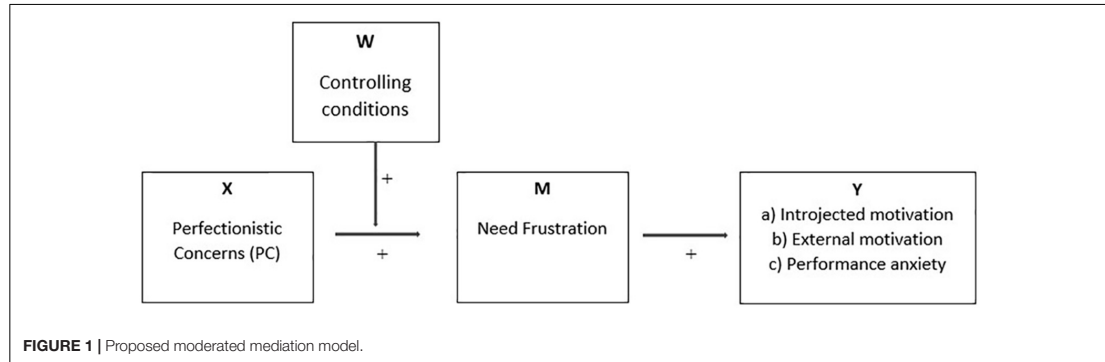
In the SDT-based literature, controlling teaching/coaching style is characterized by the use of conditional regard, meaning that approval and acceptance are given only when students behave or live up to the expected and preconceived standards of emotions, cognitions, and behavior (Reeve, 2009;

Assor et al., 2014; Bartholomew et al., 2018). Such controlling teaching/coaching may be represented by humiliation, yelling, critique, or punishment, which have been found to nurture external motivational regulations (Soenens and Vansteenkiste, 2010; De Meyer et al., 2016). The experience of pressure and control might also work indirectly via attention withdrawal or showing disappointment, which in turn, may create guilt, shame, self-criticism, and anxiety (Soenens and Vansteenkiste, 2010; Bartholomew et al., 2018). These experiences are likely to generate introjected motivational regulations that control the way of thinking and acting from inside the person (Soenens and Vansteenkiste, 2010). It is worth noting that both introjected and external motivational regulations are characterized as controlled motivation within the SDT-based literature. They are associated with less engagement and persistence, and with the lack of proactive coping strategies (Mouratidis and Michou, 2011; Ryan and Deci, 2017). Hence, controlled motivation is likely to be negative for elite performance (Soenens et al., 2012). PC performers are likely to experience the teaching/coaching style with a biased mindset (Shafran et al., 2002; Nordin-Bates et al., 2014), monitoring for critical feedback, lack of attention, and other signs of imperfection or disapproval. Hence, performers reporting higher levels of PC might be more susceptible to the development of controlled motivation and associated outcomes (e.g., performance anxiety) in highly controlling teaching/coaching conditions (Haerens et al., 2015; Appleton and Curran, 2016).

Despite the empirical evidence in relation to controlling teaching/coaching behaviors, such a teaching/coaching style still appears to be a common phenomenon in TDEs (Reeve, 2009; De Meyer et al., 2016; Bartholomew et al., 2018). Research has also indicated that controlling conditions are likely to be found within experience-based and top-down apprenticeship cultures (e.g., arts and sports), in which the teachers/coaches are seen as authority figures (i.e., former top performers) and, in some cases, gatekeepers who are holding significant power over their students/athletes (Lakes, 2005; Nash and Collins, 2006; Burwell, 2013). Few studies, however, have investigated the role of controlling conditions within TDEs including elite junior performers of these performance domains.

Based on the research reviewed and SDT-based tenets, the present study tested the following hypotheses (see also **Figure 1**):

1. PC are positively related to controlling conditions, need frustration, introjected motivation, external motivation, and performance anxiety.
2. Controlling conditions will moderate the relation between PC and frustration of the needs for autonomy, competence, and relatedness, in such a manner that these relationships will be positive and stronger among those who report higher levels of controlling teaching/coaching conditions.
3. The indirect associations between PC and (a) introjected motivation, (b) external motivation, and (c) performance anxiety via the frustration of autonomy, competence, and relatedness will be more evident among those who report higher levels of controlling teaching/coaching conditions.



MATERIALS AND METHODS

Participants and Ethical Considerations

We purposefully recruited and invited all high-achieving elite junior performers (achieving within top 20%) who also attended prestigious junior TDE schools across selected activities in sport and arts in Norway at age 16–19 ($M = 17.31$; $SD = 0.94$). The 171 participants (84 boys, 87 girls) came from individual sports ($N = 118$; swimming, rowing, athletics, skating, cross-country skiing, biathlon, and alpine skiing) and art ($N = 59$; classical music and ballet). The TDEs in sport were operated by the sports federations in collaboration with the Norwegian Olympic Center and specialized private high schools for elite sports, while specialized higher education institutions ran the TDE schools (conservatoires) within the arts. All programs had entrance regulated by competitive auditions, and offered both acceleration and enrichment. The study gained a response rate of 84%, and thus, represent a unique sample of the best junior performers present in the small country of Norway (about 5 million inhabitants). Other studies of successful versus less successful elite performers across domains have found that elite performers are distinctive, sharing many similar psychological characteristics (Ericsson et al., 2003). The performers had all participated in deliberate practice in their activity for many years ($M = 9.56$; $SD = 3.21$). Moreover, they spent many hours on their activity each week ($M = 20.92$; $SD = 7.98$).

We recruited the participants through a dialogue with sport federations, national teams, and leaders of TDE schools. They voluntarily and in writing consented to participate in accordance to the Declaration of Helsinki, after receiving oral and/or written information about the study. This study was carried out after ethical approval of the protocol by the state governed Norwegian Center for Research Data (approval code nr. 53471). The data was collected using a digital survey tool called SurveyXACT, and the participants received a personal link by email. In collaboration with the sport federations and TDE art schools, the first author traveled to collect the data directly in separate activity groups, which helped monitor the data collection settings. For some participants, however, the survey was answered privately due to

a lack of scheduled national team practices or due to absence. Finally, the data was transferred to IBM Statistics SPSS 24.0 and *Mplus* version 8 for data analyses.

Measurements

All measurements are based on translated, contextualized, piloted, and validated questionnaires. To contextualize the measurements the first author translated the questionnaires to Norwegian, the fourth author performed a back-translation and both adjusted the final version. The contextualization was executed by instructional information, “tagging” in front of each item section, as well as contextualized adaptation on item-level where it was natural to do so (Madigan and Stoeber, 2016). We then tested a pilot version of the questionnaire on two former TDE performers who gave feedback on the given use of language, contextualization, and instructions, before administering the survey.

Perfectionistic Concerns

A contextualized version of the Frost Multidimensional Perfectionism Scale was used (F-MPS; Frost et al., 1990). The subscales Concern over Mistakes (CM, nine items; e.g., “If I fail at my activity, I feel like a failure as a person”) and Doubts about Actions (DA – four items; e.g., “It takes me a long time to do something “right”) assessed perfectionistic concerns. The participants answered on a 7-point Likert scale from 1 (*totally disagree*) to 7 (*totally agree*). This scale has been shown reliable and valid in several studies, including in contextualized versions in sport and art (Madigan and Stoeber, 2016).

Controlling Conditions

The Perceived Controlling Style Scale (Halvari et al., 2012), was used (six items; e.g., “I experience that my teacher/coach is making all the decisions”). Responses were made on a 5-point Likert scale from 1 (*totally disagree*) to 5 (*totally agree*). The initial validation study supported the internal consistency and factor structure of the scale (Halvari et al., 2012).

Need Frustration

The Basic Psychological Need Satisfaction and Frustration Scale (Chen et al., 2015) was adapted to measure need frustration.

Four items captured need frustration for each of competence (e.g., “I feel insecure regarding my ability to master my activity”), autonomy (e.g., “Most of the things I do feel like “I have to”), and relatedness (e.g., “I feel the relationships I have are just superficial”). The subscales were measured on a 7-point Likert scale from 1 (*totally disagree*) to 7 (*totally agree*). This scale has been validated and assessed across contexts and cultures (Chen et al., 2015).

Controlled Motivation

The Behavioral Regulations in Sport Questionnaire (BRSQ; Lonsdale et al., 2008) subscales of introjected regulation (four items; e.g., “I would feel ashamed if I quit”) and external regulation (e.g., “I feel pressure from other people to participate in my activity”) was used. The responses were made on a 7-point Likert scale from 1 (*totally disagree*) to 7 (*totally agree*). The instrument has been developed and shown to be valid in sport contexts, as well as in art contexts (Hancox et al., 2015).

Performance Anxiety

The Mental Readiness Form (MRF-3; e.g., Krane, 1994) assessed performance anxiety related to competitive situations (i.e., competition or stage performance). This is a short form of only three items, designed and validated (Cox and Russell, 1999) to correspond with subscales of cognitive anxiety, somatic anxiety, and self-confidence from the Competitive State Anxiety Inventory (Martens et al., 1990). Responses were made on a scale ranging from 1 to 100% of anxiety arousal (divided by 10 in the analyses) to assess the participants’ experienced anxiety levels.

Analytical Strategy

The data were first checked for normality, missing values, and outliers (Tabachnick and Fidell, 2007). To validate the measures we tested factor loadings and model fit using confirmatory factor analyses (CFA) in *Mplus* version 8. If the validation failed, we did supplemental explorative factor analysis (EFA) in SPSS to explore how data adjusted to the expected theoretical subscales in our sample and searched for reduced, but theoretical meaningful subscales. Finally, we calculated reliability values for each scale in *Mplus* using coefficient omega, found more appropriate for most research applications (Widaman et al., 2011).

Next, we calculated descriptive statistics and bivariate correlations using SPSS. The Spearman ρ was applied, as dichotomous controlling variables (gender, domain) were included, and as it has been found more robust to a lack of normal distribution (Tabachnick and Fidell, 2007). Cohen’s evaluation of small ($r = 0.10$ – 0.29), medium ($r = 0.30$ – 0.49), and large effects ($r > 0.50$) were used for interpretation (Cohen et al., 2003).

For the main analyses, we applied moderated mediation (Hayes, 2017; Muthén et al., 2017). To extend the popular mediation models scholars have suggested that it may be wise to determine if an association is constant across different contexts, groups or characteristics of individuals, or contingent of the interaction with circumstances (Hayes, 2017). We therefore first conducted simple moderation analysis in SPSS using Hayes (2017) model templates with mean-centered product variables. This analysis explored the contribution of

the direct and interaction associations of PC and controlling conditions on the intervening variables (each need frustration), and to receive beta coefficients to probe and visualize the interactions. This procedure was repeated in three models for each need separately.

Structural Equation Modeling (SEM) was chosen for the final analyses of the full models as it also provides model fit indices, bootstrap confidence intervals (CI), and strategies for dealing with missing data. For reasons of parsimony and to increase statistical power, we estimated the model containing only one intervening variable and one outcome variable at a time. Aligned with critique raised toward estimation of interaction of latent variables (Hayes, 2017), and as the sample size of the current study may be regarded as low for latent variables modeling ($N = 171$), manifested variables were used in the SEM models to ensure sufficient statistical power (Cohen et al., 2003; Schweizer and Furley, 2016). An *a priori* sample size calculator for multiple regression (Soper, 2018) recommended minimum 97 participants to reach a power level of 0.8 to detect an effect size of 0.15, at an alpha level of 0.05 and with six variables. As suggested by previous research (e.g., Marsh et al., 2004), good model fit is indicated by a chi-square non-significant p -value (> 0.05). As the chi-square test can be sensitive to sample size, however, the relative chi-square ($\chi^2/df < 2$) is a robust supplemental test (Marsh et al., 2004). For additional fit evaluation, we relied on both incremental (CFI) and absolute (RMSEA/SRMR) indices. Fit was deemed acceptable if RMSEA/SRMR values were close to or lower than 0.08, accompanied by a CFI value close to or higher than 0.95 (Marsh et al., 2004).

RESULTS

Preliminary Analyses

Screening and Validation

There were no outliers and few missing data (0.6–1.7%). The missing data were handled using Full Information Maximum Likelihood, claimed to be a robust strategy (Lang and Little, 2018). As the variables were moderately skewed (range -0.04 to 1.09) and kurtosis (range -0.04 to 1.16; e.g., Tabachnick and Fidell, 2007), as expected in a high-achieving sample, 10,000 bootstrap was conducted in all analysis as advised by previous researchers (Ng and Lin, 2016).

An overall CFA of all the study variables showed acceptable fit [$\chi^2(565) = 860.13$, $p = 0.00$, $\chi^2/df = 1.5$, CFI = 0.90, SRMR = 0.06, RMSEA = 0.06 (90% CI, 0.05–0.06)] after some adjustments in the validation process of each sub-scale. Especially the concern over mistakes sub-scale of PC had to be reduced and adjusted (for details of the instrument validation, see **Supplementary Material**).

Descriptive Statistics and Bivariate Correlations

Table 1 presents means, standard deviations, reliability estimates, and inter-correlations for all study variables, including domain and gender. As shown, the performers tended to display moderate levels of PC, low levels of controlling conditions, basic needs frustration, controlled motivation, and moderate levels of

TABLE 1 | Descriptive statistics and estimated correlation matrix (Spearman's rho) for the study variables.

Variable	M (SD)	Ω	1	2	3	4	5	6	7	8	9	10
1. Perfectionistic concerns	3.36 (1.1)	0.82	–									
2. Controlling conditions	1.83 (0.7)	0.75	0.43**	–								
3. Frustration competence	2.37 (1.4)	0.86	0.59**	0.45**	–							
4. Frustration autonomy	2.33 (1.4)	0.87	0.49**	0.44**	0.68**	–						
5. Frustration relatedness	1.90 (1.3)	0.88	0.50**	0.42**	0.58**	0.65**	–					
6. Introjected motivation	3.11 (1.8)	0.86	0.48**	0.38**	0.56**	0.55**	0.63**	–				
7. External motivation	1.96 (1.3)	0.88	0.37**	0.40**	0.51**	0.55**	0.63**	0.75**	–			
8. Performance anxiety	3.74 (2.3)	0.75	0.33**	0.25**	0.36**	0.26**	0.24**	0.30**	0.27**	–		
9. Domain	–	–	–0.24*	–0.14*	–0.29**	–0.25**	–0.25**	–0.15	–0.11	–0.20*	–	
10. Gender	–	–	0.20**	0.05	0.10	0.03	0.12	0.10	0.06	0.19**	–0.12	–

* $p < 0.05$, ** $p < 0.01$ (2-tailed); M, mean; SD, standard deviation; Ω, omega coefficient. All scales are measured on a 7-point Likert scale except controlling conditions (5-point Likert scale) and performance anxiety (1–100% arousal divided by 10). Domain refers to art (= value 1) vs. sport (= value 2). Gender refers to boys (= value 1) vs. girls (= value 2).

performance anxiety. In line with hypothesis 1, the correlations revealed that PC shared medium to large positive associations with all other variables.

Controlling Variables

Analysis of variance (ANOVA) was performed to examine potential differences between gender and domain (sport vs. art) on the key study variables. The results indicated significant effects by gender on PC ($F = 6.18$, $df = 1$, $p = 0.01$, $\eta_p^2 = 0.04$), frustration of relatedness, ($F = 4.62$, $df = 1$, $p = 0.03$, $\eta_p^2 = 0.03$), and anxiety, ($F = 7.24$, $df = 1$, $p = 0.01$, $\eta_p^2 = 0.04$). Girls reported higher scores than boys for all these variables, with small ($\eta_p^2 > 0.01 < 0.06$) effects (Fritz et al., 2012). Domain also showed significant and small to moderate ($\eta_p^2 > 0.06$) effects for PC ($F = 10.10$, $df = 1$, $p = 0.00$, $\eta_p^2 = 0.06$); competence frustration ($F = 16.34$, $df = 1$, $p = 0.00$, $\eta_p^2 = 0.09$); autonomy frustration ($F = 8.66$, $df = 1$, $p = 0.00$, $\eta_p^2 = 0.05$); relatedness frustration ($F = 11.63$, $df = 1$, $p = 0.00$, $\eta_p^2 = 0.07$); and anxiety ($F = 7.24$, $df = 1$, $p = 0.01$, $\eta_p^2 = 0.04$). Sport performers scored lower on these variables compared to art performers. Due to these results, and to keep the main model as parsimonious as possible, domain was added as a categorical control variable associated with the intervening variables (need frustration), whereas domain and gender were added as categorical control variables associated to the outcomes (introjected, external, and anxiety) to control for their influence on the model results.

Main Analyses

Moderation

Hypothesis 2 suggested that controlling conditions would moderate positively the relation between PC and each need frustration, such that this association would be stronger for those who reported higher, instead of lower, levels of controlling conditions. However, the analyses using PC as an independent variable and controlling conditions as a moderator toward each need as dependent variables, showed only support for the moderation model on need for competence (PC/ $b_{1x} = 0.53$, $p = 0.00$; Control/ $b_{2w} = 0.55$, $p = 0.00$; PC*control/ $b_{3xw} = 0.29$,

$p = 0.01$; $R^2 = 0.45$). In the cases of frustration of need for autonomy (PC/ $b_{1x} = 0.38$, $p = 0.00$; Control/ $b_{2w} = 0.59$, $p = 0.00$, PC*control/ $b_{3xw} = 0.13$, $p = 0.30$; $R^2 = 0.27$) and relatedness (PC/ $b_{1x} = 0.32$, $p = 0.00$; Control/ $b_{2w} = 0.52$, $p = 0.00$; PC*control/ $b_{3xw} = 0.16$, $p = 0.158$; $R^2 = 0.28$), no significant interactions were present. In summary, these moderation analyses showed that hypothesis 2 was supported only in the model of frustration of competence. Specifically, as visualized in **Figure 2**, competence frustration was stronger for those experiencing higher levels of controlling conditions, and this difference increased when PC increased (calculated from equation: $\hat{y} = \bar{y} + b_1x + b_2w + b_3xw$, with -1 SD below the mean as low, and 1 SD above the mean as high values; Hayes, 2017). The additional t -tests with the Johnson-Neyman technique (Hayes, 2017) for the model of competence frustration showed that the range of statistical significance covered the entire variety of the moderator values in the data from the lowest score 1 ($t = 2.43$, $p = 0.02$) to the highest score 4.2 ($t = 4.22$, $p = 0.00$). Due to these results, the competence need frustration (CNF) was decided to be the only intervening variable used while testing hypothesis 3 in the further moderated mediation analyses.

Moderated Mediation

Complete moderated mediation results are presented in **Table 2**. The models provided very good fit indices for the models of introjected motivation^a, $\chi^2(1) = 0.10$, $p = 0.76$, $\chi^2/df = 0.05$, CFI = 1.00, SRMR = 0.03, RMSEA = 0.00 (90% CI, 0.00–0.14), external motivation^b, $\chi^2(1) = 0.10$, $p = 0.74$, $\chi^2/df = 0.05$, CFI = 1.00, SRMR = 0.03, RMSEA = 0.00 (90% CI, 0.00–0.14), and performance anxiety^c, $\chi^2(1) = 0.88$, $p = 0.77$, $\chi^2/df = 0.19$, CFI = 1.00, SRMR = 0.03, RMSEA = 0.00 (90% CI, 0.00–0.14). The effect sizes of explained variance of the intervening variable CNF ($R^2 = 0.45$), as well as for the outcomes (a) introjected motivation ($R^2 = 0.32$), (b) external motivation ($R^2 = 0.29$), and (c) performance anxiety ($R^2 = 0.32$) were large (Fritz et al., 2012). The results showed direct associations from PC on introjected motivation ($\beta = 0.18$, $p = 0.02$) and performance anxiety ($\beta = 0.20$, $p = 0.03$), but not on external motivation ($\beta = 0.00$, $p = 0.96$). In contrast, direct associations were found

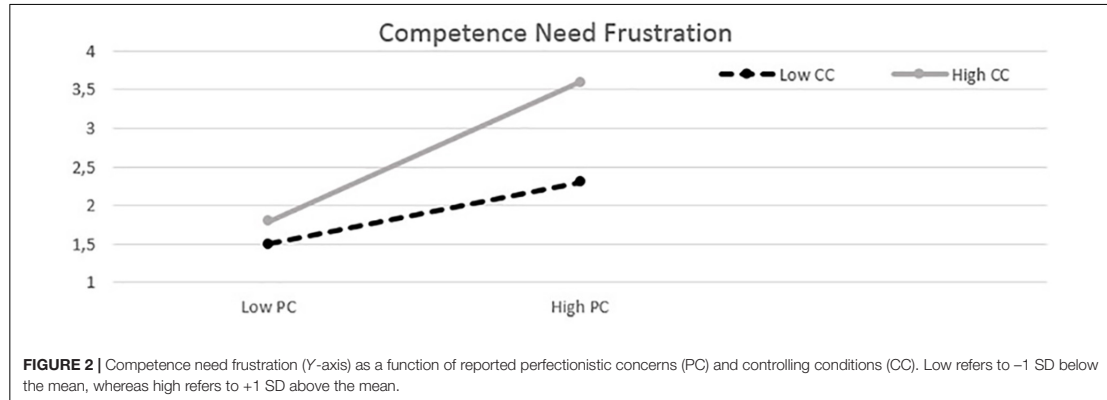


TABLE 2 | Modeling results of moderated mediation analyses testing hypothesis 2.

Direct effects	Mediator = competence need frustration			Dependent variable introjected ^a , external ^b , anxiety ^c		
	β	SE β	Two-tailed p-value	β	SE β	Two-tailed p-value
Gender	-	-	-	0.01 ^a 0.03 ^b 0.16 ^c	0.07 ^a 0.07 ^b 0.06 ^c	0.85 ^a 0.66 ^b 0.02 ^c
Domain	-0.13	0.06	0.03	0.11 ^a 0.29 ^b -0.04 ^c	0.06 ^a 0.13 ^b 0.06 ^c	0.10 ^a 0.02 ^b 0.52 ^c
Perfectionistic concerns	0.44	0.08	0.00	0.18 ^a 0.00 ^b 0.20 ^c	0.08 ^a 0.08 ^b 0.09 ^c	0.02 ^a 0.96 ^b 0.03 ^c
Controlling conditions	0.26	0.09	0.00	0.11 ^a 0.23 ^b 0.04 ^c	0.08 ^a 0.08 ^b 0.09 ^c	0.16 ^a 0.00 ^b 0.65 ^c
PC*control	0.16	0.08	0.04	-0.07 ^a -0.09 ^b 0.00 ^c	0.06 ^a 0.07 ^b 0.07 ^c	0.21 ^a 0.21 ^b 0.99 ^c
Competence need frustration	-	-	-	0.41 ^a 0.42 ^b 0.31 ^c	0.09 ^a 0.08 ^b 0.10 ^c	0.00 ^a 0.00 ^b 0.00 ^c
Indirect effects	β	SEβ	Two-tailed p-value	CI 95% LL	CI 95% HL	
Conditional indirect effect of PC on introjected motivation ^a , external motivation ^b , anxiety ^c through competence need frustration at:						
Low control (-1 SD)	0.18 ^a 0.14 ^b 0.16 ^c	0.12 ^a 0.10 ^b 0.12 ^c	0.14 ^a 0.16 ^b 0.18 ^c	-0.02 ^a -0.01 ^b -0.02 ^c	0.47 ^a 0.37 ^b 0.48 ^c	
Mean level of control	0.29 ^a 0.21 ^b 0.25 ^c	0.11 ^a 0.09 ^b 0.12 ^c	0.01 ^a 0.02 ^b 0.03 ^c	0.10 ^a 0.06 ^b 0.08 ^c	0.57 ^a 0.43 ^b 0.56 ^c	
High control (+1 SD)	0.39 ^a 0.29 ^b 0.35 ^c	0.14 ^a 0.10 ^b 0.14 ^c	0.00 ^a 0.00 ^b 0.01 ^c	0.17 ^a 0.11 ^b 0.12 ^c	0.72 ^a 0.50 ^b 0.69 ^c	

All estimated parameters are standardized with STDYX Standardization, except the index of conditional effects that are only reported as unstandardized index (Hayes, 2017). ^aIntrojected; ^bExternal; ^cAnxiety.

from controlling conditions on external motivation ($\beta = 0.23$, $p = 0.003$), but not on introjected motivation ($\beta = 0.11$, $p = 0.158$) and performance anxiety ($\beta = 0.04$, $p = 0.654$). There was no significant direct interaction effects (PC*Controlling conditions) associated with the three outcomes in any of the models. However, the index of the conditional indirect effects between PC and (a) introjected motivation [$index = 0.29$ (95% CI, 0.10–0.57), $p = 0.01$], external motivation, [$index = 0.21$ (95% CI, 0.07–0.43), $p = 0.02$], and (c) performance anxiety [$index = 0.26$ (95% CI, 0.08–0.56), $p = 0.03$], via CNF, was significant. These results support hypothesis 3, as the relation between PC and the outcomes was more evident as the moderator values increased, showed by conditional indirect effects that was significant at mean and high levels (+1 SD) of the moderator, but not at the low level (–1 SD).

DISCUSSION

The purpose of this study was to examine why and under what circumstances perfectionistic concerns (PC) were associated with controlled motivation and performance anxiety in a sample of elite junior performers. We aimed to test the roles of controlling conditions and need frustration as explanatory mechanisms. In general, the results showed that the typical Norwegian elite junior performer experienced adaptive and well-functioning motivational processes. However, the results supported the vulnerability hypothesis of PC as a variable related to debilitating motivational processes. Furthermore, the current study tested and found support for the role of competence need frustration (CNF) as the key intervening variable between PC and the outcomes of (a) introjected motivation, (b) external motivation, and (c) performance anxiety. In addition, controlling teaching/coaching conditions were a moderator as the debilitating motivational processes tested in the three models were more evident among those reporting higher levels of controlling teaching/coaching conditions. Implications of these findings are discussed below and structured in line with the three hypotheses.

The Debilitative Motivational Signature of PC Among Elite Junior Performers

The linking of the PC trait with SDT tenets both corroborated and extended previous perfectionism research. Supporting hypothesis 1, the results showed that higher levels of PC were positively associated with perceptions of controlling teaching/coaching style, the frustration of basic psychological needs, controlled motivation, and performance anxiety. This confirms initial evidence of PC as a contributor to SDT's maladaptive motivational path, which is characterized by need frustration, controlled motivation, dysfunction, and ill-being (Boone et al., 2014; Hill, 2016; Jowett et al., 2016). These findings may indicate that the motivational signature of PC, particularly within TDEs, is the paradoxical portrayal of “successful failures,” characterized by conditional self-worth, self-critical attitudes, over-striving, and avoidance coping strategies (Eusania et al., 2014; Hall, 2016;

Patston and Osborne, 2016). That is, even elite junior performers, such as those sampled for this study, may end up feeling imperfect and as “failures” if they also possess high levels of PC, regardless of their quite extraordinary achievements (top 20% in their national age group). Linked with controlled motivation, and performance anxiety, such a motivational process certainly seems at odds with suggested guidelines for healthy TD (Hill A. et al., 2016).

Need Frustration and the Role of Competence Need Frustration

The results partially supported hypothesis 2 and demonstrated that higher levels of PC were associated with introjected motivation and performance anxiety both directly and, more strongly, indirectly through CNF. External motivation had only indirect associations. These findings fit nicely alongside recent work in sport psychology that has clarified basic needs as intervening variables in the relation between perfectionism and burnout (Mallinson and Hill, 2011; Jowett et al., 2016). Our findings also extend these studies by testing other outcomes known to undermine optimal functioning and well-being in elite junior performers, such as controlled motivation and performance anxiety (Woodman and Hardy, 2003; Kenny et al., 2004; De Meyer et al., 2016; Correia and Rosado, 2018).

The results add interesting nuances to previous studies of needs frustration (Mallinson and Hill, 2011; Boone et al., 2014; Jowett et al., 2016), as only the need for competence functioned as an intervening variable between PC on the one hand, and controlled motivation and performance anxiety on the other. There were also positive associations between PC and frustration of the other two needs (i.e., autonomy and relatedness). However, no significant interaction effect, or indirect associations on the outcomes, were found. As such, the need for competence turned out to be the key psychological need in the current sample of elite junior performers. As found in other TDEs studies (e.g., Fransen et al., 2018a,b; Stabell, 2018) competence seems to be the most important “currency” in TDEs. As the very essence of TDEs is to demonstrate superiority and outperform others, further possibilities (i.e., social status, attention, re-selection, and advantages) are seemingly dependent on achieved success (Stabell, 2018). Hence, elite junior performers reporting higher levels of PC are likely to get their inherited vulnerability and conditional self-worth activated when operating within TDEs (Hall, 2016). To avoid inferiority and failure, elite junior performers reporting higher levels of PC might end up in a debilitating motivational circle of emotions (i.e., frustration, stress, and negative affect), cognition (i.e., guilt, shame, and fear of failure), and behavior (i.e., rigidity, obsession, and avoidance strategies), constantly nurturing their CNF, controlled motivation, and performance anxiety (Flett and Hewitt, 2016). Due to the cross-sectional nature of the study, this is initial evidence, and we suggest the need for future studies extending this line of perfectionism research with longitudinal designs.

Concerning explanations of why CNF and not autonomy and relatedness did intervene between PC and the outcomes of controlled motivation and performance anxiety in the current study, one might only speculate. For example, one explanation might be the unique and vital role competence holds, not only as a core driver of PC (Hill, 2016), but also within the three tested outcomes. Performance anxiety is triggered by an experienced imbalance between situational demands and perceived competence (Correia and Rosado, 2018). Also in SDT, the origin of positive functioning and autonomous motivation (opposite to controlled motivation) are tied to competence, to the innate urge to interact effectively and master one's surroundings (Elliot et al., 2002). Moreover, competence is especially activated in TDEs, where competence seems to be the currency that controls the conditional regard inherited in the controlling teaching/coaching style (Stabell, 2018; Haraldsen et al., in press), resulting in a strong conceptual coherence between the study variables in the model where CNF are used as the explanatory mechanism. More research is needed to extend this line of SDT-based research in diverse contexts.

The Moderating Role of Controlling Conditions

The interaction between PC and controlling teaching/coaching conditions has been less studied compared to PC and parenting styles (Soenens et al., 2012; Assor et al., 2014). Hence, the current study tested whether tendencies typically associated with parenting style (an origin of PC), could be extended to the teaching/coaching setting in TDEs. The results indicated that this was the case, as the interaction between PC and controlling teaching/coaching conditions (Bartholomew et al., 2018), were associated with higher levels of CNF, controlled motivation, and performance anxiety.

When reporting high levels of PC, elite junior performers might be biased in the way they perceive their teaching/coaching styles (Appleton et al., 2011; Boone et al., 2014; Nordin-Bates et al., 2014). Activated by aspects of controlling conditions, they are likely to enter a kind of hypervigilant state, driven by emotional stress from their conditional self-worth, which in turn, seems to associate with fear of failure and avoidance motivation (Shafran et al., 2002). Controlling conditions might reinforce this pattern, as a trigger and extension of conditional regard received from another significant other (Assor et al., 2014). The displaying of higher levels of PC might also function as a substitute for being externally controlled, as a way of taking the control back, directing it into self-control, obsessiveness, and relentless pursuit for success (Shafran et al., 2002; Boone et al., 2014). Thus, such behavior might trigger and increase the PC tendencies within performers, whereas, when faced with low controlling conditions these tendencies might be immobilized (Shafran et al., 2002; Nordin-Bates et al., 2014).

From an applied perspective, the most vital lesson learned from this study might be the importance of avoiding controlling mechanisms. This seems especially true in ambitious performance-oriented TDE settings, where too many performers are likely to experience higher levels of PC, as well as risking

failure and adversity (Dunn et al., 2012; Appleton and Curran, 2016; Schinke et al., 2017). Moreover, teachers/coaches should be encouraged to pay attention to how they as authority figures and gatekeepers (Nash and Collins, 2006; Burwell, 2013), indirectly (and perhaps unintentionally) hold power, and thus might pressure, control, and affect elite junior performers' motivation in conditional and, hence, debilitating directions. As an alternative, and in line with the SDT tenets, they should be stimulated and taught how to behave in less controlling and in more autonomy-supportive ways, as research indicates that autonomous functioning might be a proactive coping strategy and resilience factor (Radel et al., 2013; Ryan and Deci, 2017; Ryan and Ryan, 2018).

Strengths, Limitations, and Future Research

The findings should be interpreted in light of some limitations. The cross-sectional design, preventing temporal precedence, hampers absolute evidence of the order of variables or the stability of the indirect associations tested. Another limitation originates from the sole reliance on self-report data, which may be a threat to validity. The sample size ($N = 171$) might be a limitation from a statistical perspective; however, the sample is also a strength, as it accounts for almost all of the unique and exclusive top 20% high-achieving population of elite junior performers in Norway (response rate = 84%). Strengths are also the novel and sophisticated conditional process modeling (for details, see Hayes, 2017), linking controlling teaching/coaching style with perfectionism, and hence, providing deeper insight into the motivational signature of perfectionism in elite junior performers. Thus, future studies should re-examine similar models longitudinally with larger samples from different domains and TDE settings.

CONCLUSION

Framed within SDT, the present study examined the motivational signature of PC in a sample of Norwegian elite junior performers from sport and arts. The results indicated that displaying high levels of PC might expose elite junior performers to higher risks of experiencing debilitating motivational processes. Specifically, they appear more likely to develop controlled motivation and experience performance anxiety through competence need frustration (CNF). Furthermore, the findings indicated that these experiences were conditional on varying levels of reported controlling teaching/coaching conditions. Hence, the indirect associations on controlled motivation and performance anxiety via CNF was more evident in performers reporting mean and higher levels of controlling teaching/coaching conditions. In contrast, there were no indirect associations via CNF for those performers who reported low levels of controlling conditions. Overall, these findings support key tenets of SDT and implies that coaches/teachers of elite junior performers might play a key role in preventing CNF and experiences of

debilitative motivational processes through avoiding the misuse of a controlling teaching/coaching style.

information about the study. All data are anonymous and ethical procedures for storage of data are followed.

DATA AVAILABILITY

The datasets generated for this study are available on request to the corresponding author.

ETHICS STATEMENT

This study was carried out in accordance with the recommendations of Norwegian Center for Research Data. All subjects gave written informed consent in accordance with the Declaration of Helsinki. The protocol was approved by Marianne Høgetveit Myhren and Eva J. B. Payne. Participants voluntarily consented to participate after receiving oral and/or written

AUTHOR CONTRIBUTIONS

HMH has been the main contributing researcher in this study. HMH, HH, BS, FA, and SN-B conceived and designed the study, drafted the work and revised the content, and approved the final version of the manuscript and agreed the research quality. HMH, HH, and BS analyzed the data.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2019.01366/full#supplementary-material>

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- Conflict of Interest Statement:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplemental material to “The Role of Perfectionism and Controlling Conditions in Norwegian Elite Junior performers’ Motivational Processes”

Validation of Measurement scales

An overall confirmatory factor analysis (CFA) of all the study variables showed acceptable fit ($\chi^2(565) = 860.13, p = .00, \chi^2/df = 1.5, CFI = .90, SRMR = .06, RMSEA = .06$ [90% CI, .048- .062]) after the adjustments in the validation process of each sub-scale outlined below. The subscale Concern over mistakes showed poor model fit and we had to make a reduced and adjusted subscale. Other studies using the Frost Multidimensional Perfectionism Scale (F-MPS; Frost, Marten, Lahart, & Rosenblate, 1990) have faced similar challenges with cross-loadings and/or low loadings on their respective subscales, and have successfully used reduced and adjusted sub-scales (Cox, Enns, & Clara, 2002). The remaining study variables faced only minor adjustments.

Concern over Mistakes

The 9-item subscale Concern over mistakes (CM) from the F-MPS (Frost et al., 1990) did not provide an acceptable fit to the data in the initial CFA ($CFI = .84, SRMR = .07, RMSEA = .13$ [90% CI, .10- .15]). In line with outlined suggestions (Cox et al., 2000), we inductively developed a reduced and adjusted subscale. To guide this approach, we combined exploratory factor analysis (EFA) and theoretical interpretation (Tabachnick & Fidell, 2007). Because our aim was to test if the scale consisted of one or two separate factors, a Varimax rotation was chosen to best serve our purpose (Hair, Anderson, Tatham, & William, 1998; Tabachnick & Fidell, 2007).

The EFA with Varimax rotation suggested a two-factor solution (51.40% total variance explained) supported by Kaiser’s criteria (Eigenvalues > 1) and the scree plot (Tabachnick & Fidell, 2007). The Kaiser-Meyer-Olkin (KMO) test on the rotated solution was excellent ($KMO = .876$, Bartlett’s test of Sphericity; $p < .01$), indicating a highly valid EFA (Hair et al., 1998; Tabachnick & Fidell, 2007). The rotated factor matrix and the item wordings are displayed in Table A1, and showed that the scale divided into two separate dimensions of CM instead of the original one dimension. The first factor reflected perfectionism driven by conditional self-worth (items CM1-CM4), and the second factor mirrored internal distress over making mistakes and not being the best (items CM6-CM9). CM7 and CM8 loaded on both factors; however, loadings were just above .3 in factor one, and above .7 on factor two, indicating a better fit within factor two. One item (CM5; “If I fail at my activity, I feel like I am a failure as a person”) loaded highly (above .4) on both factors. However, when interpreting the content of this item, it is conceptually related to conditional self-worth. When examining the factor loadings on the CM self-worth sub-scale (see Table A2), including CM5, the factor structure was good and supported our placing of CM5 in the CM self-worth factor. The CFA of CM self-worth (5 items; CM1-CM5) supported this decision further, as it showed excellent fit ($CFI = .99, SRMR = .02, RMSEA = .02$ [90% CI, .00- .11]). The CFA of CM internal distress (4 items; CM6-CM9; $CFI = .99, SRMR = .02, RMSEA = .06$ [90% CI, .00- .17]) did also perform well.

These two dimensions share similar characteristics with Hewitt, Flett, Turnbull-Donovan, and Mikail’s (1991) two subscales of self-oriented (CM internal distress) and socially prescribed perfectionism (CM self-worth), and are a theoretically sound split between perfectionistic concerns that are mainly internal and personal versus external and socially driven (Appleton & Curran, 2016; Hewitt et al., 1991; Madigan & Stoeber, 2016). Moreover, socially prescribed perfectionism is nurtured by conditional regard and contingent self-worth

(Appleton & Curran, 2016; Hewitt et al., 1991) which conceptually aligns with items CM1-CM5.

Doubts about Actions

The 4 item sub-scale of Doubts about actions (DA) showed good fit in the CFA (CFI = .99, SRMR = .03, RMSEA = .06 [90% CI, .00- .18]).

The Predictor Variable of Perfectionistic Concerns Composite Scale

Over the past 25 years, empirical evidence suggests that Perfectionistic Concerns (PC) is a higher order dimension of perfectionism that conceptually comprises combinations of several lower-order perfectionism facets (i.e., concern over mistakes, doubts about actions and fear of negative social evaluation) measured by several instruments (e.g., F-MPS, HF-MPS, S-MPS, and MIPS; Madigan & Stoeber, 2016; Smith, Saklofske, Stoeber, & Sherry, 2016). Thus, as PC are often comprised of more than one latent factors, we intended the most comprehensive, but still valid, representation of PC (Hill, 2016). In order to get a broader conceptualization of PC than half the CM scale, we tried to use a combination of the CM and DA subscales.

Combining items from CM and DA in a merged scale have been used in previous studies in sport, dance, and exercise contexts (Cox et al., 2002; Madigan & Stoeber, 2016). Guided by theoretical, empirical, and comparability reasons, we ended up applying a composite score of the CM self-worth scale and the full DA scale. The choice to use CM self-worth (vs CM internal distress) was based on theoretical arguments. Specifically, the CM self-worth sub-dimension is theoretically more aligned with overall PC and controlling conditions, which both are conceptually underpinned by conditional self-worth (Assor, Kanat-Maymon, & Roth, 2014; DiBartolo, Frost, Chang, LaSota, & Grills, 2004; Soenens & Vansteenkiste, 2010). Moreover, CM self-worth is a reflection of socially described perfectionism (Hill, 2016), also a sub-dimension of PC within Hewitt & Flett's perfectionism instrument (Hewitt et al., 1991). The CFA of the composite PC scale showed an acceptable fit (CFI = .95, SRMR = .06, RMSEA = .07 [90% CI, .03-.11]), and hence, this scale was used in the tested models of moderated mediation.

The Moderator Controlling Conditions

In the moderator variable controlling conditions we had to remove one of the items of the scale that caused problems as it turned out to be a so-called Heywood case. The item, when investigated in EFA, produced an additional factor, resulting in one autonomy frustration factor and one factor representing the merger of competence- and relatedness frustration. When forced into a one-factor solution, this item's communality exceeded 1.0. After removing this item the CFA performed very well (CFI = 1.00, SRMR = .03, RMSEA = .00 [90% CI, .00-.09]).

The Intervening Variable Association of Basic Need Frustration

The scale showed good fit for both autonomy need frustration (CFI = .99, SRMR = .02, RMSEA = .07 [90% CI, .00- .18]) and relatedness need frustration (CFI = .99, SRMR = .02, RMSEA = .07 [90% CI, .00- .18]). In the competence need frustration scale, however, there were high cross-loadings between two items, and the CFA model fit was poor (CFI = .88, SRMR = .05, RMSEA = .25 [90% CI, .16- .34]). However, after we removed one item with high cross-loadings, the CFA of competence need frustration had only three indicators (just-identified) and goodness-of-fit evaluation did not apply (Brown, 2014). However, the overall CFA of the three basic need frustration sub-scales showed an acceptable fit (CFI = .96, SRMR = .05, RMSEA = .06 [90% CI, .02- .08]).

The Outcomes of Performance Anxiety and Controlled Motivation

The outcome variables were measured in line with the original instruments without any adjustment. The CFA of introjected motivation (CFI = .96, SRMR = .05, RMSEA = .06 [90% CI, .02- .08]) and external motivation (CFI = .96, SRMR = .05, RMSEA = .06 [90% CI, .02- .08]) showed good fit. However, as performance anxiety had only three indicators, it resulted in a just-identified model ($df = 0$), and goodness-of-fit evaluation did not apply (Brown, 2014). Factor loadings ranged from .59-.97, which is regarded as acceptable in the statistical literature (Brown, 2014).

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Table A1
Rotated Factor Matrix of Concern over mistakes subscale 9 items

	Item (back-translated from Norwegian to English)	Factor 1	Factor 2
CM1	Coaches/teachers/peers will probably think less of me if I make a mistake.	.745	
CM2	If I do not do as well as other in my activity, it means I am an inferior being.	.651	
CM3	If I do not do well all the time in my activity, people will not respect me.	.770	
CM4	The fewer mistakes I make in my activity, the more people will like me.	.573	
CM5	If I fail at my activity, I feel like I am a failure as a person.	.439	.503
CM6	I am usually upset if I make a mistake when I practice my activity.		.628
CM7	If someone does a task at my activity better than I do, then I feel as if I failed the whole task.	.336	.730
CM8	If I fail partly fail in my activity, it is as bad as being a complete failure.	.313	.702
CM9	I hate being less than the best at things in my activity.		.596

Note. Extraction Method: Principal Axis Factoring. Rotation Method: Vairmax with Kaiser Normalization. Coefficients below .03 are suppressed.

Table A2:
Factor Loadings of Concern over mistakes self-worth 5 items

	Item (back-translated from Norwegian to English)	Factor 1
CM1	Coaches/teachers/peers will probably think less of me if I make a mistake.	.794
CM2	If I do not do as well as other in my activity, it means I am an inferior being.	.672
CM3	If I do not do well all the time in my activity, people will not respect me.	.780
CM4	The fewer mistakes I make in my activity, the more people will like me.	.649
CM5	If I fail at my activity, I feel like I am a failure as a person.	.586

Note. Derived from the CFA in Mplus.

Paper III

Haraldsen, H. M., Solstad, B. E., Ivarsson, A., Halvari, H., & Abrahamsen, F. E. (Resubmitted).

An examination of change in basic needs frustration and performance outcomes among elite junior performers. *Scandinavian Journal of Medicine & Science in Sport*.

**An Examination of Change in Basic Need Frustration and Performance
Outcomes among Elite Junior Performers**

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Declarations of interest: none

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Abstract

The present study examined if there were different growth profiles in basic needs frustration in elite junior performers. Subsequently, we examined if the identified growth profiles differed in their levels of personal standards and concern over mistakes measured at baseline, and additionally, whether they were associated with higher or lower levels of performance anxiety and perceived performance level in the end of the nine month period. A sample of 259 ($M_{age} = 17.31$; $SD_{age} = 0.97$) elite junior performers from sports and performing arts completed an online questionnaire to report their perceptions of the study variables. The analysis were conducted using structural equation modeling and latent growth modeling. Two main contrasting growth profiles were identified in each of the basic need frustration models were identified. Personal standards were overall high, but did not differ between the growth profiles. Conversely, concern over mistakes differed significantly between the different growth profiles of each basic need frustration, respectively. Higher levels of concern over mistakes were associated with the most maladaptive growth profiles. Elite junior performers who experienced moderate and increasing levels of competence and autonomy frustration, reported higher levels of performance anxiety and lower levels of perceived performance level than those who reported low and decreasing perceptions. There were no significant differences between the growth profiles in frustration of relatedness. In line with the tenets of SDT, basic need frustration played a key role in the elite junior performers' maladaptive motivational processes.

Keywords: Perfectionism, Self-determination theory, Basic psychological needs, Talent development, Growth Mixture Modelling

Introduction

Reaching the top in sports and performing arts can be hard and stressful [1-3]. The motivational mechanisms of the basic psychological needs [4] might over time underpin why some elite junior performers survive and thrive, despite adversity, and why others experience ill-being and diminished functioning [5-7]. Both personal and contextual factors are found to influence the motivational malfunctioning of elite junior performers [8-10]. Yet, few studies based in self-determination theory (SDT) have investigated personal determinants [4], even though they are likely to influence the perception of and reaction to environmental requests, and thus, impact the satisfaction or frustration of the three basic psychological needs [10-12]. Hence, the purpose of the present longitudinal cohort study was to extend previous research regarding the role of perfectionism and basic need frustration [6, 10] as determinants of elite junior performers' performance anxiety and perceived performance level.

Basic Need Frustration and Perfectionism

According to SDT, the basic psychological needs for autonomy, competence, and relatedness are fundamental nutrients for optimal functioning and thriving [7]. SDT postulates that persistent deprivation of any of the aforementioned psychological needs has costs for personal growth and well-being [7, 13]. There is a distinct difference between the lack of fulfillment (i.e., low levels of satisfaction) and experienced basic need frustration [14, 15]. When experiencing need frustration, the basic needs are likely to manifest in feelings of inferiority and failure (competence need frustration), pressure and manipulation (autonomy need frustration), and distance and isolation (relatedness need frustration [7]). Most studies on basic psychological needs have used a composite measure of basic need satisfaction or frustration, which make it difficult to distinguish between the unique contribution and associations made by each psychological need (for a review, see [16]). However, a review of several SDT-based studies in the work domain concluded that it is not appropriate to average the three psychological needs together or to use an overall need satisfaction or frustration

score [16]. Indeed, studies examining each need, separately, have shown that sports and performing arts performers are likely to experience differing levels of each of the three basic psychological needs [17-19].

Perfectionism is viewed as a multidimensional personal disposition, which is likely to influence motivational functioning in a unique way [9, 20]. Moreover, it is claimed to be paradoxical, energize a strong motivational force (i.e., dedication, effort, and persistence), yet, might also nurture debilitating patterns of cognition, emotion, and behavior [21-23]. The different dimensions of perfectionism might be important indicators of how elite junior performers give meaning to and act upon demanding performance tasks [24, 25]. Specifically, personal standards (PS), which are associated with setting extremely high standards and a strong desire to perform flawlessly, represent self-directed dimensions of perfectionism. Conversely, concern over mistakes (COM), which are externally derived, are manifested by combinations of conditional self-worth, fear of failure, and fright of social rejection due to failure [23, 26].

COM are likely to undermine the three basic needs, because COM is characterized by being externally driven, rigid and social inflexible [6, 23, 27]. Previous research has consistently shown associations between externally driven dimensions of perfectionism and a range of maladaptive and unhealthy outcomes including basic need frustration [10], performance anxiety [28], and performance development [29]. Conversely, self-directed forms of perfectionism, such as PS, have been shown to be ambiguously (positive, non-related, and negative) associated with similar outcomes [25, 30, 31]. Additionally, PS have been found to relate to behavioral approach tendencies (i.e., approach goals and approach coping strategies) and psychological adjustment [29, 30]. Hence, based on past empirical evidence, COM and PS seem to represent distinct relations to frustration of the three basic psychological needs, [6, 10, 27].

Malfunctioning, Performance Anxiety, and Perceived Performance Level

Basic needs frustration represent indicators of malfunctioning that might undermine personal growth, thriving, and well-being [7, 10, 15]. However, perfectionism dimensions might increase the likelihood of experiencing basic needs frustration. Both factors are also associated with insufficient coping strategies and less resilience when faced with adversity [5, 32, 33]. This is a paradox, as growth-oriented functioning is essential to thrive and succeed as an elite performer [34, 35]. Furthermore, when elite junior performers experience a process of malfunctioning, and lack a growth-oriented functioning to encounter the performance situation, stress, and subsequent performance anxiety and obstructed performance is more likely to occur [11, 33, 36]. Specifically, performance anxiety reflects somatic dimensions (i.e., increased heart rate, muscle tensions) and cognitive dimensions (i.e., worry, catastrophizing, negative self-talk; [37, 38]. The latter has been found to most strongly influence elite performers, unanimously interpreted as debilitating to performance development [39, 40]. Hence, in the process of becoming an elite performer in sports and performing arts, basic needs frustration, nurtured by dimensions of perfectionism, seems at odds with the ultimate goal of elite junior performers; namely, to reach the top in their activity.

The Present Study

Set within Norwegian talent development environments (TDEs) from sports and performing arts, the present study set out to extend previous research, which has examined the role of perfectionism and basic need frustration in relation to maladaptive motivational processes. We tested if change in basic needs frustration played an underpinning role in maladaptive motivational processes, and if dimensions of PS and COM, as determinants, related differently, to change patterns of basic needs frustration. Finally, we examined how

change in basic needs frustration would influence different performance outcomes. Hence, the present study asked the following research questions:

1. Can unique growth profiles of elite junior performers' basic needs frustration over a period of nine months be identified, and are there differences in COM and PS between the identified growth curve profiles at baseline?
2. Are there group differences between the identified growth curve profiles on performance anxiety and perceived performance level in the end of the period?

Methods

Participants and Procedure

A sample of $N = 259$ (137 boys; 122 girls; $M_{\text{age}} = 17.31$; $SD_{\text{age}} = 0.97$) high-achieving Norwegian elite junior performers from sports and performing arts participated. They were purposefully recruited based on two main inclusion criteria: (a) high-achieving performers within top 20% of their age group in their activity; and (b) selected to and attending prestigious junior talent development (TD) schools parallel to upper secondary school. They came from individual sports ($n = 188$; swimming, rowing, athletics, skating, cross-country skiing, biathlon, and alpine skiing), and performing arts ($n = 71$; classical music and ballet). Within the arts, the TD programs were run by specialized art universities. The national sports federations operated the TD programs in sport. Participants spent at average 21.10 ($SD = 7.50$) hours on their activity each week, and had 9.09 ($SD = 3.40$) years of previous experience in deliberate practice in their activity. The study gained an overall response rate of 77.73%. There were some dropouts and while 138 (53%) completed all three time-points, 74 (29%) completed only two time-points, and 47 (18%) completed only one time-point.

We recruited performers through sport federations and leaders of TD programs. Participants consented to participate voluntarily, after receiving oral and/or written information about the participation in line with the Helsinki declaration. The Norwegian

Center for Research Data gave ethical approval upfront. SurveyXACT, a digital survey tool, was used to collect data. The first author traveled to collect data directly in separate activity groups and monitored that the data collection was in line with research ethics. However, some participants replied at home due the lack of scheduled team practice or to absence. The data was transferred to IBM Statistics SPSS 24.0 and then to *Mplus* version 8.3 for analyses.

Measures

All measures are domain-based adapted versions on Norwegian versions, based on translated (i.e., translation, back-translation and adjustment), and contextualized (i.e., instructional “tagging” and item-level adaption) original questionnaires [41]. Finally, two former TD performers piloted the questionnaires and delivered useful feedback on its contextualized delivery.

Perfectionism. The Frost Multidimensional Perfectionism Scale (F-MPS), 16 items from three sub-scales, was used [26]. The subscale of Personal standards (seven items; e.g., “In my activity, I set higher standards than most people”) assessed dimensions of PS. Dimensions of PC were measured with the subscales of concern over mistakes (nine items; e.g., “If I fail in my activity, I feel like a failure as a person”). A 7-point Likert scale from 1 (*totally disagree*) to 7 (*totally agree*) was used. The F-MPS has been used in numerous studies, and has shown acceptable reliability and validity, especially in contextualized versions on dancers [41, 42].

Competence need frustration. The Basic Psychological Need Satisfaction and Frustration Scale [43], was adapted to measure basic need frustration. Four items captured need frustration for each of competence (e.g., “I feel insecure regarding my ability to master my activity”), autonomy (e.g., “Most of the things I do feel like 'I have to'”), and relatedness (e.g., “I feel the relationships I have are just superficial”). The subscales were measured on a

7-point Likert scale from 1 (*totally disagree*) to 7 (*totally agree*). This scale has been validated and assessed across contexts and cultures [43].

Performance Anxiety. To measure performance anxiety in performance settings a version of the Sport Anxiety Scale (SAS; [38]), was adopted. We used the two subscales of somatic anxiety (nine items; e.g., “My stomach feels upset”) and worry (seven items; e.g., “I am concerned about choking under pressure”). The Norwegian version of the instrument (SAS-N) has demonstrated adequate validation [44] The answers were marked on a 5-point Likert scale ranging from score 1 (*never*) to 5 (*each time*).

Perceived performance level. The perceived performance level was developed by the researchers. The elite junior performers were asked to rate their performance level relative to their age group in their activity on a scale between 1 (*at the lowest performance level*), 2 (*below the average performance level*), 3 (*average performance level*), 4 (*above the average performance level*), and 5 (*at the highest performance level*). They were told to use national ranking (sport performers), grades, and assessments from teachers/coaches (art performers) to assess their evaluation.

Data Analytical Strategies

Initial screening and descriptive analyses were performed using SPSS version 24. We examined missing data for significant differences using a t-test, while the FIML strategy handled the missing data in *Mplus* 8.0 [45, 46]. To validate the overall measurement model of included study variables, we performed alpha reliability, measurement invariance analysis (MI), and confirmatory factor analyses (CFA). To evaluate the model fit indices we applied several fit indices such as the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), and the standardized root-mean-square residuals, and the SRMR [47]. An acceptable fit in the CFA is established by CFI values of .90 or above, RMSEA values of .08 or below, and SRMR values of .08 or below [47]. MI is claimed acceptable if

change in the CFI of $< .01$, changes in RMSEA of $< .015$, and the SRMR of $< .015$ are confirmed [47].

The concept of change included in longitudinal data is often studied using variable-based analysis [48]. In recent years, however, person-centered analytical approaches have gained increased interest as they are flexible and provide investigation of both inter- and intra-individual variability, and might test both predictors and outcomes of growth profiles over time [49]. Hence, for the main analyses, we performed growth mixture modeling (GMM) in *Mplus* [49]. To reach sufficient statistical power [50], we used manifest variables and tested three separate models; one model of each of the three basic psychological needs. We used three time-points, measured in 3-month interval from October to June within a school-year season, to estimate the growth curves. Subgroups of growth curves in each basic need frustration were probabilistically assigned to growth profiles based on each participant's own estimated intercept (start value at time 0) and slope (rate of change from T1-T3 [49]). Posterior profile probabilities were estimated to define each participant's profile fit [51]. Specifically, participants were classified into profiles in which the probability of their belonging was the highest. We ran a sequence of nested models, starting with one profile, to examine whether the more complex models provided a better fit to the data than the more parsimonious ones.

We used several different statistical fit indices [51]. First, the Bayesian Information Criterion (BIC [52]) and the Sample Size Adjusted BIC (SSA-BIC [53]) were inspected. Lower values indicate a better model fit for both of these indices. Second, entropy values were inspected. Higher entropy is related to a better separation between classes [54]. Third, the adjusted Lo-Mendell-Rubin test (LMR [55]) and the bootstrap likelihood ratio test (BLRT [55]) were used. On both of these tests, a statistically significant result ($p < .05$) indicates that the more complex model has a better fit for data in comparison to the more parsimonious one.

Deciding on the number of growth profiles can be difficult, and the substantive meaning, the fit indices of each solution, and parsimony all need to be considered [49].

To test if the identified growth profiles differed in the predictor variables (measured at Time 1) and the outcome variables (measured at Time 3), we used the 3-step approach [56]. The procedure consists of an overall test of associations by the use of Wald's test accompanied by pairwise profile comparison. In the present study, $p < .05$ was considered to be statistically significant. Moreover, Cohen's d effect size of small (0.20-0.49), medium (0.50-0.79), and large (> 0.80) effects was calculated for all comparisons. We used the BCH method for the continuous outcome variables, while the DCAT method was used for the dichotomous ones [56]. The dichotomous variables tested were domain (sport vs. art) and gender (male vs. female).

Results

Preliminary Analyses

The data was screened prior to the analyses to assess the magnitude of missing data. Missing data were moderate (23.51%) ranging between 16.7-18.3% (Time 1), 18.3-22.0% (Time 2), and 28.4-32.3 (Time 3). The t -tests results showed no statistically significant differences between the participants who completed the questionnaires at all time-points and those who did not (Cohen's d ranged between 2.8 and 4.6). An overall CFA of all the study variables¹ in each model showed good fit to the data: (a) Autonomy frustration; (CFI = .99, SRMR = .06, RMSEA = .03, CI 90% [.011-.035]), (B) competence frustration; (CFI = .90, SRMR = .08, RMSEA = .05, CI 90% [.046-.0615]), and (c) relatedness frustration; (CFI = .93, SRMR = .06, RMSEA = .04, CI 90% [.034-.050]). Note also that the reliability estimates ranged from $\alpha = .76$ -.91. The initial assessment of the measurement equivalence of each of the

¹ See supplemental material for details concerning preliminary validation procedure, the final chosen measurement model, and measurement invariance results of the growth curve variables.

three basic needs frustration across the three time-waves showed that the growth curve variables were invariant over time. Descriptive statistics are presented in Table 1.

Main Growth Mixture Modeling Analyses (GMM)

The fit indices of the different models are presented in Table 2. The model fit indices supported several profile solutions. The final 2 profile solution in each model was chosen in order to find robust profiles ($n > 25$) and theoretically meaningful subgroups [49]. The GMM analysis identified two main opposite profiles in each basic need model, as presented in Table 3. They were as follow: competence need frustration; (1) low and decreasing (61%) and (2) moderate and increasing (39%); autonomy need frustration; (1) moderate and increasing (25%) and (2) low and decreasing (75%); relatedness need frustration; (1) high and decreasing (11%) and (2) low and increasing (89%). All growth curves, except profile 1 in the model with autonomy frustration reflected a significant change factor (slope) over the period of nine months (see Table 3).

Subsequent tests of mean differences between the distinct growth profiles in each basic need in relation to the predictors, showed that PS was unrelated to each of the need frustration growth curves profiles. Conversely, COM differed significantly between the identified growth curves of each basic need frustration, respectively (see Table 3). Higher levels of COM was associated with the most maladaptive growth curve profiles.

The reported mean values of the predicted outcomes of performance anxiety and perceived performance level at Time 3 showed significant differences between the identified growth curve profiles in frustration of competence and autonomy. There were no statistically significant differences between the growth curves in frustration of relatedness in relation to the two outcomes. Specifically, elite junior performers, who were distributed in the growth profiles of moderate to high levels of increasing competence and autonomy frustration, reported statistically significant higher levels of performance anxiety and lower levels of

perceived performance than those who reported low and decreasing frustration of competence and autonomy. The findings also showed that sports performers had statistically more probability to belong to the low and decreasing profiles in frustration of competence and autonomy (profile 2), than the performing arts performers. In terms of gender, did significantly profile differences emerge only in the model of competence frustration, showing that boys were more likely to be distributed in the low and decreasing growth profile than girls. The effect size of the significant differences were moderate to large (ranging from Cohen's $d = 0.40$ to 1.11).

Discussion

The present longitudinal cohort study extended previous research in elite junior performance settings, which has examined the role of perfectionism and basic need frustration in relation to maladaptive motivational processes. In line with the two outlined research questions, the discussion starts by reflecting on the relationship between characteristics of the identified growth profiles and the two different dimensions of perfectionism. Next, we discuss how the different growth profiles differed with respect to performance anxiety and perceived performance level.

Change in Basic Need Frustration and Perfectionism

The typical Norwegian elite junior performer experiences low, but changing levels of basic need frustration. However, a smaller sub-group seemed to be operating within reverse and more maladaptive motivational processes than the majority of elite junior performers. Specifically, competence frustration seemed to be especially at risk, as about 4 out of 10 elite junior performers were distributed in the most maladaptive growth profile. With respect to autonomy frustration, 1 out of 4 performers belonged to the maladaptive growth profile. However, the distribution within relatedness frustration showed that only 1 out of 10 elite junior performers experienced high levels of relatedness frustration.

The perfectionism dimensions of PS and COM contributed with explaining power to why these growth profiles differed. PS was high in all the profiles, and did not differ noticeably between the different growth profiles. Overall, the high PS result indicate an extreme dedication and relentless pursuit for high standards within these groups of elite junior performers. Moreover, PS seemed to co-occur with different levels of COM, which is socially derived and entails conditional self-worth. When displaying a combined PS and COM perfectionism score, the extreme striving for PS seems to be underpinned by conditional regard, and take a more rigid and more obsessive form [22, 30]. This notion was supported by the bi-variate correlations, which revealed positive associations between PS and COM, and additionally, between PS and each basic need frustration. Previous person-centered studies of perfectionism in sport and performing arts have demonstrated similar findings, highlighting the importance of distinguishing between self-directed and socially derived underpinnings of perfectionism [30, 42, 57].

In contrast to PS, COM differed significantly between the different growth profiles in each of the three basic need models, showing that higher levels of COM were associated with higher levels of each basic need frustration. These finding are in line with previous research, which has consistently found COM to be associated with maladaptive motivational processes [22, 25, 31]. One plausible explanation of the occurred relationship between COM and each basic need frustration is the biased mindset of COM, influencing the perception of and reaction to environmental requests [58]. The way COM relates to performance evaluations (i.e., self-critical and de-evaluative), may negatively influence the need for competence. Moreover, the need for competence might be further frustrated by the way a "COM mindset" monitors for critique and disapproval in feedback from others, and thus, nurture feelings of inferiority and low self-worth [59]. In turn, feelings of imperfection might decrease social status and influence interpersonal relations, and subsequently frustrate the need for

relatedness [60, 61]. Also, as COM are linked to more controlled, rigid, and neurotic behavioral regulations, COM might additionally nurture autonomy and relatedness frustration [12, 62]. Finally, the lack of adaptive coping strategies to encounter stress and adversity, which have been found associated with COM, might also contribute to escalation in each basic need frustration over time [25]. An escalation, which in the present findings seemingly is reflected in the maladaptive growth profiles of competence and autonomy frustration, which demonstrated to be increasing.

Change in Basic Need Frustration and Performance Outcomes

When examining how the growth profiles differed with respect to mean levels of performance anxiety and perceived performance level at the end of the change period, some clear patterns emerged. First, there were no statistically significant differences in the performance outcomes in the two growth profiles of relatedness frustration. This finding might relate to the decreasing tendency in the change curve, despite high intercept levels. However, it might also reflect that social relations, when driven by more rigid and obsessive forms of perfectionism (visible in the profiles with moderate levels of COM), are not valued as having high importance to the elite junior performers [61, 63]. Thus, relatedness frustration seem to have no influence on the performers' levels of performance anxiety and perceived performance level.

Conversely, there were significant differences between the growth profiles in both competence and autonomy frustration. The results showed that the sub-groups of higher and increasing competence and autonomy frustration reported significantly higher levels of performance anxiety and lower levels of perceived performance than those who reported low and decreasing competence and autonomy frustration. These findings are in line with previous research, which has supported the notion that people who are externally driven, experiencing conditional self-worth, and social isolation, interpret their situations as less controllable, more

stressful, and more threatening [11, 33, 36]. Additionally, the vulnerability associated with the different perfectionism dimensions is likely to be triggered by interaction with performance-oriented TDEs (i.e., high expectations, competitive, and external feedback [12, 64, 65]). Furthermore, when experiencing such malfunctioning, an increasing need of resilience to encounter the maladaptive situation increases. Research based on the SDT framework has highlighted that when less self-determined, one lack the ability to negotiate stress and adversity to engage in resilience and restoration processes [5, 7, 32]. Altogether, the above interacting factors seem to trap the vulnerable and malfunctioning elite junior performers into a maladaptive motivational circle, which, in turn, result in an increase in their levels of reported performance anxiety and a decrease in perceived performance level [39, 40, 64]. Instead of reaching perfection and enhance their performances, maladaptive patterns of cognition (i.e., harsh self-critique, inferiority, shame, and fear of failure) seem to be nurtured, and thus bringing about diminished growth and maladaptive functioning.

The present study showed also show some interesting results in regards to the distribution of domain and gender within the different growth profiles. With respect to gender, there were only differences in competence frustration. As girls were more likely to belong to the maladaptive growth profiles than the boys, the findings aligned with other studies that has identified gender differences in relation to perceived competence and fear of failure [66-68]. In regards to domain, differences emerged in competence and autonomy frustration, where the performing arts performers were more likely to belong to the maladaptive growth profiles than the sport performers. This finding might relate to the Nordic sport model, as it is founded on egalitarian values and known to promote broad participation, late specialization, and holistic development approaches [69]. Conversely, the performing art context is associated with more authoritarian apprenticeship cultures known to facilitate early specialization, teacher led activities, and involve asymmetric power relations [70, 71].

Limitations

The reliance on self-report data might have validity issues due to biased interpretation and social desirability [72]. Also, the use of a self-reported perceived performance variable might be a limitation; however, we will argue that the way performers perceive and interpret their performance processes are of psychological importance. Their perception will affect their emotional, cognitive, and behavioral responses to their situation [67, 73]. Another limitation is the use of the Frost MPS instrument, which has been criticized by demonstrating an unclear factor structure. An unclear factor structure emerged and we had to use an adjusted COM self-worth scale in the current study. However, this sub-scale did align with tenets of SDT (external/internal driven), making the interpretations conceptually meaningful. Also, the sub-scale is a replication of a previous study using the Frost MPS, which identified an equal factor structure [12].

Perspectives

In line with the SDT framework, the present study demonstrated that basic need frustration plays a key role in the elite junior performers' maladaptive motivational processes [4]. Moreover, the distinct results concerning each basic need frustration, supported previous suggestions of the importance of examining and assessing the unique contribution of each basic need, separately [16, 17]. Finally, the unique findings of distinct growth profiles highlighted the importance of examining both inter- and intra- individual variability when examining personal characteristics in relation to change in human functioning [48, 74]. From an applied perspective, the present study suggests that coaches in TDEs should acquaint themselves with drawbacks concerning determinants of malfunctioning and poise the demands within the motivational climate accordingly.

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Table 1

The estimated Correlation Matrix for the Study Variable and the ANOVA F-value for Domain and Gender

Variable	M (DS)	α	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Concern mistakes self-worth1	2.73 (1.30)	0.81	-												
2. Personal standards1	5.10 (1.05)	0.78	.31**	-											
3. Frustration competence1	2.65 (1.28)	0.76	.50**	.18*	-										
4. Frustration competence2	2.54 (1.21)	0.77	.55**	.09	.66**	-									
5. Frustration competence3	2.57 (1.29)	0.78	.50**	.19*	.63**	.63***	-								
6. Frustration autonomy1	2.55 (1.22)	0.84	.41**	.12	.50**	.45**	.49**	-							
7. Frustration autonomy2	2.48 (1.14)	0.84	.41**	.17*	.45**	.64**	.47**	.65**	-						
8. Frustration autonomy3	2.35 (1.21)	0.88	.36**	.11	.36**	.43**	.60**	.67**	.65**	-					
9. Frustration relatedness1	2.23 (1.22)	0.84	.49**	.13	.48**	.44**	.40**	.57**	.48**	.44**	-				
10. Frustration relatedness2	2.20 (1.15)	0.85	.42**	.19*	.40**	.55**	.37**	.46**	.57**	.48**	.71**	-			
11. Frustration relatedness3	2.23 (1.15)	0.82	.43**	.15	.39**	.47**	.56**	.51**	.56**	.60**	.68**	.74**	-		
12. Performance anxiety_worryT3	2.60 (0.94)	0.91	.40**	.07	.40**	.48**	.53**	.35**	.40**	.45**	.16	.20*	.28**	-	
13. Performance levelT3	4.07 (1.08)		-.06	.23**	-.28**	-.31**	-.29**	-.20*	-.20*	-.17	-.18*	-.02	-.06	-.12	-.24**
Domain differences (ANOVAs)			7.53*	2.66	19.36**	23.50**	17.48**	6.52*	10.69**	5.16*	5.91*	16.97**	15.29**	10.01*	4.49*
Gender differences (ANOVAs)			4.43*	4.20*	6.51*	10.02*	7.03*	0.34	0.02	0.01	1.65	0.23	0.57	8.03*	1.61

Note. * $p < .05$, ** $p < .01$ (2-tailed); M = mean, SD = standard deviation, α = alpha reliability. The ANOVAs with 5,000 bootstrap are used for domain and gender and the F-values in the table. Degree of freedom is 1. Domain refers to performing art (= value 1) and sports (= value 2). Gender refers to boys (= value 1) and girls (= value 2).

Table 2*Fit Indices, Entropy, and Model Comparisons for Estimated Latent Profile Analyses Models*

Model	AIC	BIC	SSA-BIC	Entr	LMR	BLRT
<i>Competence</i>						
2 profile	1776.40	1815.53	1780.65	0.68	0.17	<.001
3 profile	1761.06	1810.85	1766.47	0.74	0.22	<.001
4 profile	1755.53	1815.99	1762.10	0.70	0.53	0.10
<i>Autonomy</i>						
2 profile	1680.01	1719.14	1684.26	0.76	0.14	<.001
3 profile	1672.13	1721.93	1677.54	0.79	0.44	0.02
4 profile	1661.24	1721.71	1667.81	0.82	0.02	0.02
<i>Relatedness</i>						
2 profile	1611.54	1650.67	1615.79	0.86	<0.001	<.001
3 profile	1594.25	1644.05	1599.66	0.92	0.05	<.001
4 profile	1582.51	1642.98	1589.08	0.85	0.16	<.001

Note. AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; SSA-BIC = Sample Size Adjusted Bayesian Information Criterion; LMR = p-value for Adjusted Lo-Mendell-Rubin likelihood ratio test; BLRT = p-value for bootstrap likelihood ratio test.

Table 3

Mean Values for Study Variables for the Growth Profiles

	Frustration competence ⁷		Frustration autonomy ⁷		Frustration relatedness ⁷	
	Growth profile 1	Growth profile 2	Growth profile 1	Growth profile 3	Growth profile 1	Growth profile 2
Growth profile variables						
Frustration competence⁷						
Distribution	<i>n</i> = 158 (61%)	<i>n</i> = 101 (38%)				
Intercept	2.04*	3.50*				
Change T1-T3	-0.15*	0.19*				
Frustration autonomy⁷						
Distribution			<i>n</i> = 64 (25%)	<i>n</i> = 195 (75%)		
Intercept			3.66*	2.16*		
Change T1-T3			0.20	-0.16*		
Frustration relatedness⁷						
Distribution					<i>n</i> = 28 (11%)	<i>n</i> = 231 (89%)
Intercept					4.33*	1.78*
Change T1-T3					-0.59*	0.15*
Predictor variables						
Personal standards ⁷	5.03	5.20	5.23	5.04	5.03	5.11
Concern mistakes self-worth ⁷	2.11 ^a	3.68 ^a	3.50 ^b	2.46 ^b	3.47 ^c	2.53 ^c
Outcome variables						
Performance anxiety worry ⁵	2.13 ^a	3.36 ^a	3.44 ^b	2.38 ^b	2.62	2.59
Perceived performance level ⁵	4.40 ^a	3.55 ^a	3.39 ^b	4.28 ^b	4.04	4.08
Gender (%)						
Male	65 ^a	35 ^a	49	55	44	55
Female	35 ^a	65 ^a	51	45	56	45
Domain (%)						
Sport	86 ^a	52 ^a	54 ^b	79 ^b	56	75
Art	14 ^a	48 ^a	46 ^b	21 ^b	44	25

Note: **p* < .05, ***p* < .01. T1 refers to baseline Time 1, whereas T3 refers to Time 3 (nine months later). ⁷ = 7-point Likert scale; ⁵ = 5-point Likert scale. Significant group differences are indicated with similar letter superscripts in the compared profiles. Gender refers to boys (= value 1) vs. girls (= value 2). Domain refers to art (= value 1) vs. sport (= value 2). *N* = 259

Table 4

χ^2 statistics and effect size (Cohen's *d*) for the differences in the maladaptive outcomes between profiles.

Predictor and Outcome variables	Frustration competence		Frustration autonomy		Frustration relatedness	
	1	2	1	2	1	2
Concerns over mistakes self-worth	56.15** (1.05)		23.52** (0.63)		11.83** (0.44)	
Personal standards	0.93 (0.12)		1.21 (0.14)		0.11 (0.04)	
Performance anxiety	61.17** (1.11)		35.97** (0.80)		0.04 (0.02)	
Performance Level	16.48** (0.52)		10.33** (0.41)		0.00 (0.00)	
Domain	21.38** (0.60)		0.58 (0.09)		2.00 (0.18)	
Gender	17.11** (0.53)		9.73* (0.40)		0.75 (0.11)	

Note: All χ^2 analyses used one degree of freedom. *= $p < .05$, **= $p < .001$. The Cohen's *d* effect size for the variables are reported within the parentheses. Gender refers to boys (= value 1) vs. girls (= value 2). Domain refers to art (= value 1) vs. sport (= value 2). *N* = 259

26 have successfully used reduced and adjusted subscales (for details, see[4]). The remaining
27 study variables personal standards (PS) and competence need frustration faced only minor
28 adjustments, whereas the sub-scales of autonomy need frustration, relatedness need
29 frustration, and performance anxiety worry were used in their original, however
30 contextualized versions.

31 **Concern over Mistakes.** The 9-item subscale Concern over mistakes (COM) from the
32 F-MPS (Frost et al., 1990) did not provide an acceptable fit to the data in the initial CFA (CFI
33 = .91, SRMR = .06, RMSEA = .10 [90% CI, .07- .12]). In line with outlined suggestions[4],
34 we inductively explored and developed an adjusted scale. To guide this approach, we
35 combined exploratory factor analysis (EFA) and theoretical interpretation[10]. Because we
36 expected some cross loadings, we selected an oblimin rotation [10, 11].

37 The EFA with oblimin rotation suggested a two-factor solution (51.98% total variance
38 explained) supported by Kaiser's criteria (Eigenvalues > 1) and the scree plot (Tabachnick &
39 Fidell, 2007). The Kaiser-Meyer-Olkin (KMO) test on the rotated solution was excellent
40 (KMO = .903, Bartlett's test of Sphericity; $p < .001$), indicating a highly valid EFA (Hair et
41 al., 1998; Tabachnick & Fidell, 2007). The rotated factor matrix and the item questions are
42 displayed in Table A1. They showed that the subscale divided into two separate dimensions of
43 COM instead of the original one-dimension. The first factor reflected perfectionism driven by
44 conditional self-worth (items COM1-COM4), and the second factor mirrored internal distress
45 over making mistakes and not being the best (items COM5-COM9). Therefore, we will argue
46 that this is a theoretically sound split between PC that stem mainly from internal and personal
47 sources (COM internal distress), versus external and socially driven types (COM self-worth).
48 This differentiation is also suggested by others scholars (e.g., [5, 12, 13], and used by the
49 authors in a previous study on a different sample of elite junior performers [14]. The split is
50 also in line with the core tenets of SDT that distinguish between autonomous functioning

51 based on internal locus of causality and to controlled functioning driven by external locus of
52 causality (for details, see [15]). Hence, we will argue that this is a theoretically sound split
53 between perfectionistic concerns that are mainly internal and personal (COM internal distress)
54 versus external and socially driven (COM self-worth) suggested by other scholars (e.g., [5,
55 12, 13]). Furthermore, we will argue that the split offers additional information and nuances to
56 the conceptualization and discourse concerning perfectionism (i.e., internal or externally
57 driven forms of perfectionism) that might extend the perfectionism literature. Also
58 empirically, this split was supported, as the strength of the estimates, as well as model fit
59 indices were increased in the adjusted models of the COM-scale. Finally, to align with the
60 tenets of SDT, we chose to use the COM self-worth sub-subscale in the final estimated GMM
61 models, as it entails external locus of causality and conditional regard.

62 **Personal Standards.** The 7-item subscale of personal standards showed that one item
63 (“I am very good at focusing my efforts on attaining a goal”) loaded very low (.244). After
64 removing this item, the CFA of the six remaining items showed acceptable model fit (CFI =
65 .96, SRMR = .04, RMSEA = .07 [90% CI, .02- .11]).

66 **Competence need frustration.** In the competence need frustration scale, there were
67 high cross-loadings between two items, and the CFA model fit was poor (CFI = .95, SRMR =
68 .03, RMSEA = .13 [90% CI, .05- .22]). However, after we removed the one item (i.e., “In my
69 activity, I feel disappointed with many of my performances”), which had the lowest factor
70 loading (.62), and the highest correlation (.51) with another item (i.e., “In my activity, I feel
71 like a failure because of the mistakes I make”). As the CFA of competence need frustration
72 then only had three indicators (just- identified), goodness-of-fit evaluation did not apply
73 (Brown, 2014).

74 **Measurement Invariance in Growth Curves of Basic Need Frustration**

75 Even though we ended up using manifest variables in the finalized growth mixture
76 models, we tested each basic need frustration of measurement invariance (MI) over time,
77 which was guided by the steps of Little [1]. MI was tested in three steps: (1) configural
78 invariance (testing the model form and if the same patterns of factor loadings occur over time;
79 (2) metric invariance (testing the equivalence of item loadings on the factors across time); (3)
80 scalar invariance (testing the equivalence of item intercepts on the factors across time). MI is
81 claimed acceptable if change in the comparative fit index (CFI) of $< .01$, changes in the root-
82 mean-square error of approximation (RMSEA) of $< .015$, and the standardized root-mean-
83 square residuals (SRMR) $< .030$ (metric) or $< .015$ (scalar) are confirmed (Little, 2013). The
84 initial assessment of the equivalence of each of the latent growth curve study variables across
85 the three time-waves showed that the concept of each basic need frustration was invariant
86 across time as shown in Table 2. However, the frustration of autonomy subscale did only
87 receive this acceptable invariance in the RMSEA at scalar level after releasing one of the four
88 factor intercepts restrictions as suggested in the literature [1].

89

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134 **Table A1**135 *Rotated Factor Matrix of Concern Over Mistakes Subscale 9 items*

136

	Item (back-translated from Norwegian to English)	Factor 1	Factor 2
COM1	Coaches/teachers/peers will probably think less of me if I make a mistake.	.753	
COM2	If I do not do as well as other in my activity, it means I am an inferior being.	.803	
COM3	If I do not do well all the time in my activity, people will not respect me.	.744	
COM4	The fewer mistakes I make in my activity, the more people will like me.	.482	
COM5	If I fail at my activity, I feel like I am a failure as a person.		.571
COM6	I am usually upset if I make a mistake when I practice my activity.		.575
COM7	If someone does a task at my activity better than I do, then I feel as if I failed the whole task.		.594
COM8	If I fail partly fail in my activity, it is as bad as being a complete failure.		.798
COM9	I hate being less than the best at things in my activity.		.667

137 *Note.* Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser
 138 Normalization. Coefficients below .03 are suppressed.

139

140

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142

143 **Table 2**

144 *Measurement Invariance (MI) Results*

Variable	Configural		Metric			Scalar		
	Fit indices		Fit indices	Diff.	Fit indices		Diff.	
Frustration of autonomy	CFI	.996	CFI	.996	.000	CFI	.994	.002
	RMSEA	.018	RMSEA	0.16	.002	RMSEA	.020*	.000
	SRMR	.031	SRMS	.037	.006	SRMR	.038	.001
Frustration of competence	CFI	1.000	CFI	1.000	.000	CFI	1.000	.000
	RMSEA	.000	RMSEA	.000	.000	RMSEA	.000	.000
	SRMR	.021	SRMR	.023	.002	SRMR	.025	.003
Frustration of relatedness	CFI	.966	CFI	.969	.003	CFI	.970	.001
	RMSEA	.051	RMSEA	.045	.006	RMSEA	.042	.003
	SRMR	.050	SRMR	.056	.006	SRMR	.057	.001

145 *Note.* * = One item (factor intercept) are released of restrictions to ensure invariance (Little,
 146 2013).

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Paper IV

Haraldsen, H. M., Ivarsson, A., Solstad, B. E., Abrahamsen, F. E., & Halvari, H. (Submitted).
Examining the composites of perfectionism and inauthenticity in relation to controlled motivation,
performance anxiety and exhaustion among elite junior performers. *European Journal of Sport Sciences*.

1 **Examining the Composites of Perfectionism and Inauthenticity in Relation**
2 **to Controlled Motivation, Performance Anxiety and Exhaustion among**
3 **Elite Junior Performers**

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Declarations of interest: none

19

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23

24

25 **Examining the Composites of Perfectionism and Inauthenticity in Relation to Controlled**
26 **Motivation, Performance Anxiety, and Exhaustion among Elite Junior Performers**

27

28 Abstract

29 The present study identified profiles of perfectionism and inauthenticity (measured at time 1)
30 and tested whether there were differences between these profiles in the maladaptive
31 performance outcomes of controlled motivation, performance anxiety, and exhaustion
32 (measured at time 2). We purposefully selected elite junior performers ($N_{T1} = 219$; $N_{T2} = 156$),
33 16–19 years of age, from Norwegian talent development schools in the sports and performing
34 arts spheres. The participants completed questionnaires to report their perceptions of the study
35 variables over a period of nine months. The results of the latent profile analysis indicated a
36 multidimensionality of perfectionism, thereby identifying four profiles. The more externally
37 driven elite junior performers, displaying high levels of both perfectionistic concerns and
38 perfectionistic strivings and moderate to high levels of inauthenticity, reported the highest
39 levels of controlled motivation, performance anxiety, and exhaustion. Additionally, low levels
40 of inauthenticity were shown to function as a buffer towards the tested maladaptive
41 performance outcomes. The findings indicated that a heightened vulnerability of
42 perfectionism seems evident in externally driven forms of perfectionism that originate from
43 conditional self-worth and inauthenticity dispositions. The vulnerability of externally driven
44 perfectionism might be an important factor to notice, because almost one out of three elite
45 junior performers was distributed in the externally driven mixed perfectionism profile.

46

47 *Keywords:* perfectionism, self-determination theory, motivation, performance, Latent
48 Profile Analysis (LPA)

49

50

Introduction

51 Perfectionism is characterised by over-striving, avoidance behaviour, and unstable
52 self-worth (Hill, 2016) and it varies among elite performers in the sports and performing arts
53 spheres (Hill & Madigan, 2017; Quested, 2014). Moreover, inauthenticity reflects a tendency
54 to live out of line with one's true self and to be externally driven (Ryan & Ryan, 2018).
55 Indeed, previous research has indicated that these two concepts are personal vulnerability
56 dispositions that are tied to a range of maladaptive performance outcomes, such as controlled
57 motivation, performance anxiety, and mental and physical exhaustion (e.g., Nordin-Bates,
58 Raedeke, & Madigan, 2017, Ryan & Ryan, 2018; Stoeber, Otto, Pescheck, Becker, & Stoll,
59 2007). Thus, the aim of this study is to examine how the individual composites of
60 perfectionism and inauthenticity among elite junior performers in the sports and performing
61 arts spheres are associated with a set of maladaptive performance outcomes (Stoeber, 2012;
62 Stoeber & Eismann, 2007).

63 Perfectionism is the pursuit of extremely high standards supplemented by excessive
64 critical self-assessments. This tendency among elite performers is likely to energise high
65 levels of motivation; however, it may also nurture debilitating psychological patterns
66 (DiBartolo, Frost, Chang, LaSota, & Grills, 2004; Frost, Marten, Lahart, & Rosenblate, 1990).
67 Accordingly, it is important to note that perfectionism entails two primary dimensions. First,
68 *perfectionistic strivings* (PS) reflect striving towards high standards and a desire to perform
69 flawlessly, representing mainly self-directed perfectionism (Hill, 2016). Second,
70 *perfectionistic concerns* (PC), which are mainly socially derived, reflect a tendency to be
71 concerned over mistakes, to doubt own actions, and to fear social rejection (Hill, 2016;
72 Stoeber et al., 2007). Previous research has consistently linked PC with a range of
73 maladaptive performance outcomes (DiBartolo et al., 2004; Hill, Mallinson, & Jowett, 2016;

PERFECTIONISM AND INAUTHENTICITY IN ELITE JUNIOR PERFORMERS

74 Stoeber, 2012), whereas PS have been ambiguously related to the same outcomes (Gotwals,
75 Stoeber, Dunn, & Stoll, 2012; Hill et al., 2016; Stoeber & Eismann, 2007).

76 Elite performers are likely to display co-existing combinations of these perfectionism
77 dimensions that inversely influence their ways of negotiating their requirements (i.e., stress-
78 level, performance-evaluation, and coping strategies), thus distinctively influencing the
79 maladaptive performance outcomes (e.g., Gotwals et al., 2012; Nordin-Bates et al., 2017;
80 Stoeber et al., 2007). In recent person-centred studies, such as the 2 x 2 model of
81 perfectionism (e.g., Gaudreau, 2016; Hill & Madigan, 2017; Nordin-Bates et al., 2017), the
82 findings supported the benefits of a non-perfectionism profile (low PS, low PC) and internally
83 driven forms of perfectionism reflected in a PS profile (high PS, low PC). Moreover, findings
84 supported the maladaptive nature of a socially driven PC profile (high PC and low PS) that is
85 derived from conditional regard (Kljajic, Gaudreau, & Franche, 2017). Inconsistent findings
86 between mixed (high PC and high PS) and PC (low PS and high PC) profiles, and between
87 non-perfectionism and PS profiles, have however been found (Hill & Madigan, 2017; Nordin-
88 Bates et al., 2017). Hence, more nuanced insight into the diverse profiles of perfectionism
89 dimensions and their underpinning mechanisms is required.

90 **Perfectionism and Inauthenticity**

91 From a motivational perspective, the hypotheses offered by the 2 x 2 model of
92 perfectionism¹ are consistent with the self-determination theory tenets (SDT; Ryan & Deci,
93 2017), which postulate that adaptive functioning is differentiated by the degree of self-
94 determination or autonomy (Gaudreau, 2016; Kljajic et al., 2017). In previous research, PS
95 have been linked to more autonomous motivation and PC to controlled motivation (Barcza-
96 Renner, Eklund, Morin, & Habeeb, 2016; Hill et al., 2016).

¹ Hypothesis 1a: PS > non-perfectionism; 1b: PS < non-perfectionism; 1c: PS = non-perfectionism; hypothesis 2: non-perfectionism > PC; hypothesis 3: mixed perfectionism > PC; hypothesis 4: PS > mixed perfectionism (Gaudreau, 2016; > means better psychological adjustment, = means equivalent psychological adjustment).

PERFECTIONISM AND INAUTHENTICITY IN ELITE JUNIOR PERFORMERS

97 SDT stipulates that the disposition of authenticity (i.e., the congruent self-endorsing of
98 actions) is at the centre of its predictions concerning autonomous motivation (Ryan & Ryan,
99 2018). Conversely, inauthenticity reflects conforming to external influence, concealing one's
100 own identity, and feeling self-alienated (Wood, Linley, Maltby, Baliouisis, & Joseph, 2008).
101 Inauthenticity entails an external locus of causality and is the driving force behind controlled
102 motivation (Ryan & Deci, 2017; Ryan & Ryan, 2018; Taris & Van den Bosch, 2018). More
103 specifically, *external* motivation reflects the activities driven by coercive demands and
104 rewards, whereas the activities underpinned by obligation, guilt, and shame echo *introjected*
105 motivation (Haerens, Vansteenkiste, Aelterman, & Van den Berghe, 2016). Accordingly, high
106 levels of socially derived inauthenticity are associated with high levels of controlled
107 motivation, anxiety, and maladaptive performance outcomes (Ryan & Ryan, 2018; Taris &
108 Van den Bosch, 2018). Hence, inauthenticity, may represent an indicator of the tendency
109 towards self-directed or socially derived behaviour, which, in turn, may explain the reasons
110 why PC and PS turn in (mal)adaptive directions.

111 **Maladaptive Functioning**

112 The vulnerability of the externally derived perfectionism and inauthenticity
113 dispositions is associated with general negative psychological adjustment, which is likely to
114 negatively influence the performance development of elite junior performers (Gucciardi,
115 Mahoney, Jalleh, Donovan, & Parkes, 2012; Gustafsson, Sagar, & Stenling, 2017; Stoeber et
116 al., 2007). Therefore, this study examined various indicators of maladaptive functioning in
117 order to investigate the extent to which diverse perfectionism and inauthenticity profiles
118 would generalise into a set of debilitating outcomes. Controlled motivation is posited as low
119 quality motivation, associated with maladaptive functioning (Gustafsson, Carlin, Podlog,
120 Stenling, & Lindwall, 2018; Haerens et al., 2016). Performance anxiety and exhaustion are
121 stress-related outcomes that reflect a perceived imbalance between resources and situational

122 requests, which is likely to affect performance outcomes (Gustafsson, Sagar, & Stenling,
123 2017; Lazarus, 2000; Stober et al., 2007). Whereas performance anxiety is experienced as
124 situational stress before and/or during competition (Lazarus, 2000), exhaustion is experienced
125 as a consequence of this stress, characterised by a reduction of emotional and physical
126 resources (Gustafsson et al., 2017; Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1986).

127 **The Present Study**

128 Elite junior performers are likely to vary in combinations of personal mentality (i.e.,
129 exposing vulnerability or robustness), thus, experiencing unique motivational processes and
130 consequences. Accordingly, more studies that use person-centred analytical approaches—
131 which enable comparisons of distinct profiles as determinants of relevant malfunction
132 outcomes—are suggested (Bergman & Andersson, 2010; Hill, 2016). Consequently, the
133 present study posed the following two research questions:

- 134 (1) Can unique profiles based on elite junior performers' levels of perfectionism and
135 inauthenticity dimensions, measured at baseline, be identified?
136 (2) Are there group differences between the identified profiles on self-reported
137 introjected motivation, external motivation, performance anxiety, and experiences
138 of exhaustion nine months later?

139 **Method**

140 **Participants, Procedures, and Ethical Considerations**

141 Elite junior performers (top 20%), who were 16–19 year of age ($M = 17.31$, $SD = .97$)
142 and attending talent development schools in the sports and performing arts fields in Norway,
143 were recruited. An $N = 219$ (117 boys; 102 girls) sample participated. The participants were
144 involved in individual sports ($N = 158$; swimming, rowing, athletics, skating, cross-country
145 skiing, biathlon, and alpine skiing) and performing arts ($N = 61$; classical music and ballet).
146 The study gained an overall response rate of 77% and lasted for nine months. The dropout

147 rate was 29%, as 219 participants completed Time 1 (T1) and 156 participants completed
148 Time 2 (T2). All programs require entrance by competitive auditions. The participants had M
149 = 9.09 ($SD = 3.40$) years of deliberate practice experience and practiced $M = 21.10$ ($SD =$
150 7.50) hours a week.

151 The performers were contacted through meetings and/or emails and voluntarily
152 consented to participate in the study after receiving information about it. The Norwegian
153 Centre for Research Data gave ethical approval for the study protocol upfront. The data were
154 collected using the online survey tool SurveyXact. The first author travelled to collect data in
155 separate activity groups and monitored that the process of data collection was in line with
156 research ethics. Some participants answered the survey privately (due to absence).

157 **Measurements**

158 All measurements were domain-based adapted Norwegian versions, based on
159 translated (i.e., translation, back-translation, and adjustment) and contextualised (i.e.,
160 instructional “tagging” and item-level adaption) original questionnaires (Madigan & Stoeber,
161 2016). Finally, two former performers piloted the questionnaire and provided useful feedback
162 on its contextualised delivery. The chosen subscales were intended to represent a wide set of
163 various malfunction indicators and, thus, complete versions of each instrument were not
164 obtained.

165 **Perfectionism.** The Frost Multidimensional Perfectionism Scale (F-MPS)—20 items
166 on three subscales, was used (Frost, Marten, Lahart, & Rosenblate, 1990). PS were assessed
167 using the *personal standards* subscale (seven items; e.g., “In my activity, I set higher
168 standards than most people”). PC were measured with the subscales of *concern over mistakes*
169 (nine items; e.g., “If I fail in my activity, I feel like a failure as a person”) and *doubts about*
170 *actions* (four items; e.g., “It takes me a long time to do something right”). A 7-point Likert
171 scale, ranging from 1 (*totally disagree*) to 7 (*totally agree*), was used. The F-MPS was also

PERFECTIONISM AND INAUTHENTICITY IN ELITE JUNIOR PERFORMERS

172 used in other person-centred studies on dancers and has shown acceptable reliability and
173 validity in numerous studies (Madigan & Stoeber, 2016; Nordin-Bates et al., 2017).

174 **Authenticity.** To identify aspects of inauthenticity dispositions, we used a version of
175 the Authentic Personality Scale (APS; Wood et al., 2008). Eight items from the following two
176 subscales that indicate inauthenticity were used: *self-alienation* (four items; e.g., “I feel as if I
177 don’t know myself very well”) and *accepting external influence* (four items; e.g., “I am
178 strongly influenced by the opinions of others”). Participants answered using a 7-point Likert
179 scale, ranging from 1 (*totally disagree*) to 7 (*totally agree*). Initial validation supported the
180 internal consistency and factor structure of the scale (Wood et al., 2008).

181 **Controlled motivation.** The Behavioural Regulations in Sport Questionnaire (BRSQ;
182 Lonsdale, Hodge, & Rose, 2008) was used to detect controlled motivation. Eight items from
183 the subscales of *introjected regulation* (four items, e.g., “because I would feel ashamed if I
184 quit”) and *external regulation* (four items, e.g., “because I feel pressure from other people to
185 participate in my activity”) indicated maladaptive motivation. The responses were elicited
186 using a 7-point Likert scale, ranging from 1 (*totally disagree*) to 7 (*totally agree*). The BRSQ
187 instrument is developed and shown to be reliable and valid (Lonsdale et al., 2008).

188 **Performance anxiety.** The Sport Anxiety Scale (SAS; Smith, Smoll, & Schutz, 1990)
189 was used to measure anxiety in performance settings. We used seven items from the *worry*
190 subscale (seven items; e.g., “I am concerned about choking under pressure”), as perfectionism
191 seems to relate most strongly to cognitive anxiety aspects (Miller & Chesky, 2004). The scale
192 and, especially, the *worry* subscale have confirmed support (Smith et al., 1990), including that
193 of the Norwegian contextualised version (SAS-N; Abrahamsen, Roberts, & Pensgaard, 2006).
194 The answers were given using a 5-point Likert scale, ranging from 1 (*never*) to 5 (*each time*).

195 **Exhaustion.** The *exhaustion* subscale (six items; e.g., “I feel burned out because of
196 my activity”), from the Maslach Burnout Inventory (MBI; Maslach, Jackson, Leiter,

197 Schaufeli, & Schwab, 1986), was used to identify indications of mental and physical
198 exhaustion. The exhaustion dimension was prioritised because it has been highlighted as the
199 core and most important subdimension of burnout (Gustafsson, Lundkvist, Podlog, &
200 Lundqvist, 2016). The MBI has shown acceptable internal consistency in sport contexts in
201 Norway (Bentzen, Lemyre, & Kenttä, 2017). Responses were made using a 5-point scale,
202 ranging from 1 (*never*), 2 (*sometimes*), 3 (*regularly*), 4 (*often*), and 5 (*daily*).

203 **Data Analytical Strategy**

204 Initial screening and descriptive analyses were performed using SPSS version 24. We
205 examined missing data for significant differences using a *t*-test, while the FIML strategy were
206 used to handle the missing data in *Mplus* (Lang & Little, 2018). To validate the measurement
207 model, we conducted confirmatory factor analyses (CFA). The model fit indices were based
208 on the comparative fit index (CFI; values of .90 or above), the standardised root mean square
209 residual (SRMR; values of .08 or below), and the root mean square error of approximation
210 (RMSEA; values of .06 or below; Marsh, Hau, & Wen, 2004). Pearson's *r* was applied to
211 bivariate correlations.

212 For the main analyses, we performed Latent Profile Analysis (LPA) on prospectively
213 (T1 and T2) collected data using *Mplus* 8.0. In the LPA, subgroups were identified based on
214 answer patterns of different questionnaires. Posterior profile probabilities were estimated to
215 define each participant's profile fit (Nylund, Asparouhov, & Muthén, 2007). Specifically,
216 participants were classified into profiles in which the probability of their belonging was the
217 highest (> .9 = large; > .8 = moderate, > .7 = low; Tein, Coxe, & Cham, 2013). We ran a
218 sequence of nested models, starting with one profile, to examine whether the more complex
219 models provide a better fit for the data than the more parsimonious ones.

220 We used several different statistical fit indices (e.g., Nylund, Asparouhov & Muthén,
221 2007). First, the Bayesian Information Criterion (BIC) and the Sample Size Adjusted BIC

222 (SSA-BIC) were inspected. For both of these indices, lower values indicated a better model
223 fit. Second, the adjusted Lo-Mendell-Rubin test (LMR) and the bootstrap likelihood ratio test
224 (BLRT; Nylund et al., 2007) were used. A statistically significant result ($p < .05$), on both of
225 these tests, indicates that the more complex model has a better fit for data in comparison to
226 the more parsimonious one. Third, we inspected the entropy values. Higher entropy is related
227 to a better separation between classes (Aldridge & Roesch, 2008). Deciding on the number of
228 classes can be difficult and the research aims, the fit indices, the substantive meaning of each
229 solution, and parsimony all need to be considered (Berlin et al., 2014). A rule of thumb is that
230 either proportionally $> 1.0\%$ and/or numerically $n > 25$ members are recommended due to
231 statistical power (Berlin et al., 2014). Statistical power in the LPA depends not only on the
232 sample size ($N > 100$ minimum) but also on the size of the separation between the indicators,
233 the number of indicators (> 5), the quality of indicators, as well as on the estimates of the fit
234 indexes (Tein et al., 2013).

235 To test whether the identified latent profiles differed in maladaptive outcomes at T2,
236 we used the 3-step approach (Asparouhov & Muthén, 2014) consisting of an overall test of
237 associations by the use of Wald's test as well as pairwise profile comparison. In the current
238 study, $p < .05$ was considered to be statistically significant. Additionally, Cohen's d effect
239 size was calculated for all comparisons. We used the BCH method for the continuous
240 outcome variables, while the DCAT method was used for the dichotomous ones (Asparouhov
241 & Muthén, 2014). The dichotomous variables tested were gender (male vs. female) and
242 domain (sport vs. art).

243 **Results**

244 **Preliminary Analysis**

PERFECTIONISM AND INAUTHENTICITY IN ELITE JUNIOR PERFORMERS

245 Even though missing data was 29%, the *t*-tests showed no statistically significant
246 differences between the participants who did not complete the questionnaires at T2 and those
247 who did (Cohen's *d* ranged between .04 and .29).

248 The CFA of the latent study variables in the measurement model showed good fit (χ^2
249 [989] = 1414.31, $p = 0.00$, $\chi^2/df = 1.4$, CFI = .91, SRMR = .06, RMSEA = .04 [90% CI, .036-
250 .046]; see supplemental material for validation details). Descriptive statistics are presented in
251 Table 1.

252 **Main Latent Profile Analysis (LPA)**

253 The fit indices of the different models are presented in Table 2. We identified the
254 fourth profile solution as the conceptually most meaningful despite its slightly inferior model
255 fit indices. As the statistical power in the current study could be considered to be in the lower
256 bond for estimating LPA, the importance of leaning on an overall interpretation of several
257 factors is emphasised (Tein et al., 2013). Hence, the current study fulfils several criteria, such
258 as indicator quality (ranging from .80 to .94), > 5 indicators, separation between indicators
259 (entropy 0.77), and support from the SSA-BIC and BRLT fit indices.

260 Four profiles were identified: (1) internally driven non-perfectionism (17%), (2)
261 internally driven PS distress (13%), (3) externally driven PS doubts (40%), and (4) externally
262 driven mixed perfectionism (30%). An overview of the scores of these four different profiles
263 is presented in Table 3 and a visualisation of both the absolute and z-scores of the indicators
264 are found in Figure 1. The reported T2 mean values of the predicted outcomes of controlled
265 motivation, performance anxiety, and exhaustion are reported in Table 3. The internally
266 driven non-perfectionism profile emerged as the most adaptive, whereas the externally driven
267 mixed perfectionism profile was the most maladaptive.

268 Subsequent tests of mean differences between the four profiles in the outcome
269 variables and for gender and domain, showed clear patterns of statistically significant

270 differences between profiles 1, 2, and 3, on the one hand, and profile 4 on the other (see Table
271 3). There were also significant, albeit smaller, differences between the externally driven PS
272 doubts profile on one side, and the internally driven non-perfectionism profile for all
273 outcomes except performance anxiety and towards the internally driven PS distress profile on
274 exhaustion. The effect sizes of significant differences were moderate to large (ranging from
275 Cohen's $d = 0.32$ to 1.20). The findings further showed that boys seem to be more likely than
276 girls to be in profile 2 (74.1%). In terms of domain, art performers appear less likely to be in
277 profile 1 (10.4%), than in profile 3 (29.2%) and profile 4 (38.1%).

278 **Discussion**

279 The purpose of the present study was to use a person-centred analytical approach to
280 identify latent profiles of perfectionism and inauthenticity (T1) and compare them in relation
281 to self-reported introjected motivation, external motivation, performance anxiety, and
282 experiences of exhaustion (T2). In line with the outlined research questions, we first discuss
283 the unique four identified profiles. Then, we discuss how these different identified profiles
284 differed with respect to self-reported maladaptive performance outcomes.

285 A typical Norwegian elite junior performer seemed to possess low PC and high PS,
286 accompanied by low levels of inauthenticity, indicating positive self-determined functioning
287 (Ryan & Deci, 2017). We identified four latent profiles: internally driven non-perfectionism,
288 internally driven PS distress, externally driven PS doubts, and externally driven mixed
289 perfectionism. These findings are mainly in line with the 2 x 2 model of perfectionism
290 (Gaudreau, 2016; Hill & Madigan, 2017). Nevertheless, they are also divergent because a PC
291 profile was not evident in our profile solution, thus deviating slightly from other studies on
292 dancers (Nordin-Bates et al., 2017; Quested, 2014) and athletes (Hill & Madigan, 2017).
293 Note, however that none of these previous studies were data-driven LPA studies.
294 Furthermore, as PS and PC co-occurred in all our perfectionism profiles, the findings also

PERFECTIONISM AND INAUTHENTICITY IN ELITE JUNIOR PERFORMERS

295 support the theoretical assumption that PC and PS coexist and that PC are a latent
296 maladaptive counterpart of PS (Hill et al., 2016; Hill, 2017). Conversely, our results may
297 specifically reflect the uniqueness of our elite junior performer sample (top 20% in Norway),
298 whose members set extremely high standards (PS), as been identified as a distinct attribute of
299 elite performers (Gustafsson et al., 2018; Jordet, 2016). Future person-centred research is
300 needed in order to obtain clearer insights into the distribution of the perfectionism dimensions
301 in elite junior populations.

302 The unique nuances discovered in PC subdimensions, illuminated by the
303 accompanying inauthenticity subdimensions, represent another main finding. The PC
304 subdimensions did not always follow one another in the same directions. Hence, it seemed
305 important to distinguish between whether PC derived from internal sources within a person
306 (concern over mistakes; internal distress) or from external sources that could be linked to both
307 conditional self-worth (concern over mistakes; self-worth) and to a lack of self-efficacy and
308 situational control (doubts about actions). Only the two latter subdimensions appeared in
309 concert with the higher levels of inauthenticity. Hence, the characteristics of those latent
310 profiles were consistent with self-determination tenets (Kljajic et a., 2016; Ryan & Deci,
311 2017).

312 When examining group differences in maladaptive performance outcomes (T2), the
313 internally driven non-perfectionistic profile was identified as the most adaptive profile and the
314 externally driven mixed perfectionism was the most debilitating one, indicating that even
315 moderate levels of perfectionism nurture a potential vulnerability. Additionally, another
316 finding was that externally driven forms of PC were more maladaptive than the internal ones,
317 supporting the hypothesis proposed by the 2 x 2 model of perfectionism (Gaudreau, 2016).
318 Contrary to the suggested adaptive and buffering role of PS (Gotwals et al., 2012; Hill &
319 Madigan, 2017; Hill et al., 2016), the results in the present study (as high levels of PS were

PERFECTIONISM AND INAUTHENTICITY IN ELITE JUNIOR PERFORMERS

320 apparent in all three profiles) did not support this suggestion. Conversely, when PS appeared
321 in concert with low levels of inauthenticity and, thus, were nurtured by internal sources, a
322 buffering effect seemed to be apparent. Hence, the SDT-based inauthenticity dispositions (i.e.,
323 accepting external influence and self-alienation), as indices of being externally disposed,
324 added explanatory power (Ryan & Deci, 2017, Ryan & Ryan, 2018). To extend research on
325 perfectionism, future studies that apply the SDT framework might be productive.

326 Furthermore, when examining the results related to the distribution of gender and
327 domain within the four latent profiles, group differences were evident. Boys were more likely
328 to be distributed in the internally driven PS distress profile than in the externally driven mixed
329 perfectionism profile, thereby being less exposed to maladaptive performance outcomes.
330 Unlike art performers, sport performers seemed to be more likely to be distributed in the
331 internally driven non-perfectionism profile than in the two externally driven and least
332 adaptive profiles (profiles 3 and 4). The apprenticeship culture within the arts—which is
333 found to be quite authoritarian, top-down, and with skewed power balance (Lakes, 2005)—
334 was associated with higher controlling condition levels than are found in the sport context
335 (Authors, 2019 [redacted for peer review]). Hence, these domain differences are seemingly
336 linked to the differences in learning conditions that nurture diverse levels of inauthenticity
337 dispositions and self-determined functioning (Ryan & Ryan, 2018).

338 Finally, we showed some interesting nuances in the outcome of controlled motivation
339 (Haerens et al., 2016). Introjected motivation unfolded as being clearly more distinct than
340 external motivation, which may indicate a strong link between perfectionism and introjected
341 motivation. One explanation for this might be that introjected motivation, as it is nurtured by
342 indirect controlling conditions (Haerens et al., 2016), continuously triggers the conditional
343 regard that is essential in external forms of perfectionism (Hill, 2016).

344 **Strengths and Limitations**

345 The present study has some strengths and weaknesses. First, LPA is a model-based
346 and data-driven analytical approach that allows for less arbitrary decisions regarding class-
347 definitions (Bergman & Andersson, 2015; Berlin et al., 2014). An additional strength of this
348 study also lies in the fact that the probability technique it uses has been proven to be superior
349 in previous simulation studies (Tein et al., 2013). Furthermore, the sample of the study's
350 participants represented 77% of the top 20% of elite junior performers attending Norwegian
351 talent development programs. However, the sole reliance on self-report data could pose a
352 threat to its construct validity due to biased interpretation and socially desirable responses.
353 Finally, the *concern over mistakes* subscale, which was divided into two factors, deviated
354 from the original F-MPS subscale and made our interpretation more difficult.

355

Conclusion

356 The present study aimed to identify latent profiles of perfectionism and inauthenticity
357 (T1) and, additionally, to test whether there were differences between these profiles in terms
358 of the self-reported introjected motivation, external motivation, performance anxiety, and
359 experiences of exhaustion (T2). The results indicated a multidimensionality of perfectionism
360 and identified four distinct latent profiles, slightly deviating from the 2 x 2 model of
361 perfectionism. The internally driven elite junior performers, who displayed low levels of PC
362 and inauthenticity, reported low levels of maladaptive performance outcomes. Conversely, the
363 externally driven performers, who displayed high levels of both PC and PS as well as
364 moderate to high levels of inauthenticity, reported the highest levels of maladaptive
365 performance outcomes. Low levels of inauthenticity seemed to function as a buffer for
366 maladaptive performance outcomes, which was in line with the SDT tenets. These findings
367 have theoretical importance because they indicate that elite junior performers, who report
368 being driven by perfectionism that stems from external sources and conditional self-worth,

PERFECTIONISM AND INAUTHENTICITY IN ELITE JUNIOR PERFORMERS

369 seem to be more prone to experience malfunction than those who report being driven by
370 internal and personal forms of perfectionism.

371

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495

PERFECTIONISM AND INAUTHEMATICITY IN ELITE JUNIOR PERFORMERS

Table 1

The Estimated Correlation Matrix (Pearson's r) for the Study Variables and the ANOVA F -values for Gender and Domain

Variable	α	1	2	3	4	5	6	7	8	9	10
1. Concern over mistakes _{self-worth_T1}	0.81	-									
2. Concern over mistakes _{internal-distress_T1}	0.82	.54**	-								
3. Doubts about actions_T1	0.72	.42**	.45**	-							
4. Perfectionistic strivings_T1	0.78	.32**	.52**	.27**	-						
5. Accepting external influence_T1	0.78	.38**	.35**	.48**	.20*	-					
6. Self-alienation_T1	0.79	.34**	.33**	.44**	.06	.39**	-				
7. Introjected motivation_T2	0.89	.58**	.42**	.26**	.19*	.34**	.32**	-			
8. External motivation_T2	0.93	.54**	.38**	.22**	.17*	.36**	.31**	.80**	-		
9. Exhaustion_T2	0.87	.27**	.39**	.42**	.16	.25**	.43**	.45**	.40**	-	
10. Performance anxiety_worry_T2	0.91	.41**	.33**	.28**	.08	.29**	.27**	.42**	.42**	.46**	-
Gender differences (ANOVA)		4.43*	4.20*	6.60*	1.08	23.63**	8.55*	1.13	1.18	0.03	10.01*
Domain differences (ANOVA)		7.53*	2.66	7.41*	2.53*	8.82*	5.25*	2.19	1.42	6.58*	8.03*

Note. * $p < .05$, ** $p < .01$ (2-tailed); M = mean, SD = standard deviation, α = alpha reliability. The ANOVAs with 5,000 bootstrap are used for gender and domain and the F -values are reported in the table. Degree of freedom is 1. Gender refers to boys (= value 1) vs. girls (= value 2). Domain refers to art (= value 1) vs. sport (= value 2).

PERFECTIONISM AND INAUTHENTICITY IN ELITE JUNIOR PERFORMERS

Table 2

Fit Indices, Entropy, and Model Comparisons for Estimated Latent Profile Analyses Models

Model	AIC	BIC	SSA-BIC	Entr	LMR	BLRT
2 profile	3986.50	4050.90	3990.69	0.82	< .001	< .001
3 profile	3941.22	4029.34	3946.95	0.78	.02	< .001
4 profile	3923.34	4035.18	3930.60	0.77	.16	< .001
5 profile	3903.40	4038.97	3912.21	0.83	.44	< .001

Note. BIC = Bayesian Information Criterion; SSA-BIC = Sample Size Adjusted Bayesian Information Criterion; LMR = p-value for Adjusted Lo-Mendell-Rubin likelihood ratio test; BLRT = p-value for bootstrap likelihood ratio test. $N = 219$.

Dimensions of perfectionism and inauthenticity in elite junior performers

Table 3

Mean Values for Study Variables for the Four Latent Profiles, and χ^2 Statistics and Effect Size (Cohen's *d*) for the Differences in the Maladaptive Outcomes Between Profiles

Variable	Profile 1 (<i>n</i> = 38, 17%)	Profile 2 (<i>n</i> = 28, 13%)	Profile 3 (<i>n</i> = 88, 40%)	Profile 4 (<i>n</i> = 65, 30%)		
Profile variables <i>N</i> = 219	<i>Internally driven non-perfectionism</i>	<i>Internally driven PS distress</i>	<i>Externally driven PS doubts</i>	<i>Externally driven mixed perfectionism</i>		
COM _{self-worth} _T1	1.55	2.39	2.31	4.16		
COM _{int distress} _T1	2.25	4.30	3.43	5.35		
Doubts about Actions_T1	2.45	2.32	3.71	4.74		
Personal Strivings_T1	3.83	5.83	5.06	5.60		
Accepting Ext. Influence_T1	2.69	2.63	3.64	4.40		
Self-Alienation_T1	1.72	1.52	2.24	2.99		
Outcome variables <i>N</i> = 156						
Introjected motivation_T2 ⁷	2.10 ^{a,b}	2.44 ^c	2.78 ^{a,d}	4.35^{b,c,d}		
External motivation_T2 ⁷	1.36 ^{a,b}	1.70 ^c	1.96 ^{a,d}	3.12^{b,c,d}		
Anxiety_T2 ⁵	2.15 ^a	2.09 ^b	2.50 ^c	3.18^{a,b,c}		
Exhaustion_T2 ⁵	1.86 ^{a,b}	1.85 ^{c,d}	2.45 ^{a,c,e}	3.03^{b,d,e}		
Gender (%)						
Male	62,7	74,1 ^a	52,0	38,2 ^a		
Female	37,3	25,9 ^a	48,0	61,8 ^a		
Activity (%)						
Sport	89,6 ^{a,b}	74,1	70,8 ^a	61,9 ^b		
Art	10,4 ^{a,b}	25,9	29,2 ^a	38,1 ^b		
	1 vs. 2	1 vs. 3	1 vs. 4	2 vs. 3	2 vs. 4	3 vs. 4
Introjected mot.	0.40 (0.26)	4.35* (0.32)	41.44** (1.20)	0.38 (0.10)	11.95** (0.58)	19.66** (0.75)
External mot.	1.04 (0.16)	6.64* (0.42)	37.21** (1.12)	0.49 (0.11)	12.63** (0.59)	12.62** (0.59)
Anxiety	0.04 (0.03)	1.93 (0.22)	16.42** (0.69)	2.59 (0.26)	18.12** (0.73)	10.52** (0.54)
Exhaustion	0.01 (0.02)	10.37** (0.53)	32.28** (1.02)	6.58* (0.42)	22.48** (0.82)	8.17* (0.47)
Gender	0.67	0.39	3.19	1.78	6.88*	1.30
Domain	1.36	4.34*	10.12**	0.05	0.83	0.78

Note: COM = Concern over mistakes. T1 refers to baseline Time 1, whereas T2 refers to Time 2 (nine months later). ⁷ = 7-point Likert scale; ⁵ = 5-point Likert scale. Significant group differences are indicated with similar letter superscripts in the compared profiles. The Cohen's *d* effect sizes for the continuous variables are reported within the parentheses. Gender refers to boys (= value 1) vs. girls (= value 2). Domain refers to art (= value 1) vs. sport (= value 2). *N* = 156.

Dimensions of perfectionism and inauthenticity in elite junior performers

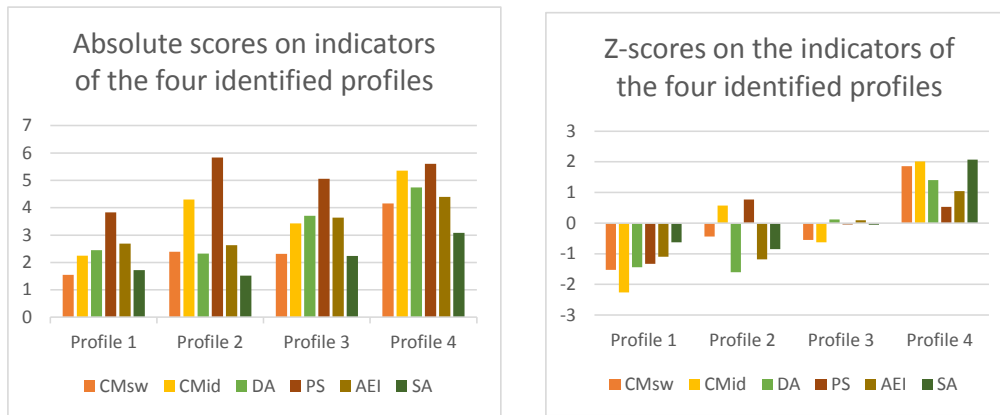


Figure 1: A visualisation of the absolute scores (left) and z-scores (right) of the profile indicators. The Y-axis indicates the absolute (range 1–7) scores or z-scores (indicating SD values) of the profile variables. CMsw = concern over mistakes self-worth, CMid = concern over mistakes internal distress, DA = doubts about actions, PS = personal strivings, AEI = accepting external influence, SA = self-alienation. $N = 219$.

Supplemental material to “An Examination of Change in Basic Need Frustration and Associations with Perfectionism and Performance Outcomes among Elite Junior Performers: A Growth Mixture Analysis”

Validation Issues

The Measurement Model

An overall confirmatory factor analysis (CFA) of all the study variables in each basic need model showed acceptable fit after the adjustments in the validation process of each subscale outlined below: (a) Autonomy frustration; (CFI = .99, SRMR = .06, RMSEA = .03, CI 90% [.011-.035]), (B) competence frustration; (CFI = .90, SRMR = .08, RMSEA = .05, CI 90% [.046-.0615]), and (c) relatedness frustration; (CFI = .93, SRMR = .06, RMSEA = .04, CI 90% [.034-.050]).

The subscale Concern over mistakes showed unacceptable model fit and we had to make an adjusted subscale. Other studies using the Frost Multidimensional Perfectionism Scale (F-MPS; Frost, Marten, Lahart, & Rosenblate, 1990) have faced similar challenges with cross-loadings and/or low loadings on their respective subscales, and have successfully used reduced and adjusted sub-scales (Cox, Enns, & Clara, 2002). The remaining study variables personal standards (PS) and competence need frustration faced only minor adjustments, whereas autonomy need frustration, relatedness need frustration, and performance anxiety worry subscale were used in original versions.

Concern over Mistakes. The 9-item subscale Concern over mistakes (COM) from the F-MPS (Frost et al., 1990) did not provide an acceptable fit to the data in the initial CFA (CFI = .91, SRMR = .06, RMSEA = .10 [90% CI, .07- .12]). In line with outlined suggestions (Cox et al., 2000), we inductively explored and developed an adjusted scale. To guide this approach, we combined exploratory factor analysis (EFA) and theoretical interpretation

(Tabachnick & Fidell, 2007). Because we expected some cross loadings, we selected an oblimin rotation as serving our purpose (Hair, Anderson, Tatham, & William, 1998; Tabachnick & Fidell, 2007).

The EFA with oblimin rotation suggested a two-factor solution (51.98% total variance explained) supported by Kaiser's criteria (Eigenvalues > 1) and the scree plot (Tabachnick & Fidell, 2007). The Kaiser-Meyer-Olkin (KMO) test on the rotated solution was excellent (KMO = .903, Bartlett's test of Sphericity; $p < .001$), indicating a highly valid EFA (Hair et al., 1998; Tabachnick & Fidell, 2007). The rotated factor matrix and the item wordings are displayed in Table A1, and showed that the scale divided into two separate dimensions of COM instead of the original one dimension. The first factor reflected perfectionism driven by conditional self-worth (items COM1-COM4), and the second factor mirrored internal distress over making mistakes and not being the best (items COM5-COM9). We will therefore argue that this is a theoretically sound split between PC that stem mainly from internal and personal sources (COM internal distress), versus external and socially driven types (COM self-worth). This differentiation is also suggested by others scholars (Appleton & Curran, 2016; Hewitt et al., 1991; Madigan & Stoeber, 2016), and used by the authors in a previous study on a different sample of junior elite performers (Authors, 2019 [deducted for peer review]). This split is also in line with the core tenets of SDT that distinguished between autonomous functioning based on internal locus of causality in contrast to controlled functioning driven by external locus of causality (Ryan & Deci, 2017). We will argue that this is a theoretically sound split between perfectionistic concerns that are mainly internal and personal (COM internal distress) versus external and socially driven (COM self-worth) suggested by others scholars (Appleton & Curran, 2016; Hewitt et al., 1991; Madigan & Stoeber, 2016). Furthermore, we will argue that the split offers additional information and nuances to the conceptualization and discourse concerning perfectionism (i.e., internal or externally driven

forms of perfectionism) that might extend the sport psychology literature. Also empirically, this split was supported, as the strength of the estimates, as well as model fit indices were increased in the adjusted models of the COM-scale.

Personal Standards. The 7-item sub-scale of personal standards showed that one item ("I am very good at focusing my efforts on attaining a goal) loaded very low (.244). After removing this item the CFA of the six remaining items showed acceptable model fit (CFI = .96, SRMR = .04, RMSEA = .07 [90% CI, .02- .11]).

Competence need frustration. In the competence need frustration scale, there were high cross-loadings between two items, and the CFA model fit was poor (CFI = .95, SRMR = .03, RMSEA = .13 [90% CI, .05- .22]). However, after we removed the one item (i.e., "In my activity, I feel disappointed with many of my performances"), which had the lowest factor loading (.62), and the highest correlation (.51) with another item (i.e., "In my activity, I feel like a failure because of the mistakes I make"). As the CFA of competence need frustration then had only three indicators (just- identified) and goodness-of-fit evaluation did not apply (Brown, 2014).

Measurement Invariance in Growth Curves of Basic Need Frustration

Table 1

Measurement invariance (MI) results

Variable	Configural		Metric		Scalar		Strict	
	Fit indices		Fit indices	Diff.	Fit indices	Diff.	Fit indices	Diff.
FA	CFI		CFI	.006	CFI	.003	CFI	.009
	RMSEA		RMSEA	.002	RMSEA	.000	RMSEA	.006
	SRMR		SRMS	.011	SRMR	.002	SRMR	.000
FC	CFI	1.000	CFI	1.000	.000	CFI	1.000	.000
	RMSEA	.000	RMSEA	.000	.000	RMSEA	.000	.000
	SRMR	.021	SRMR	.023	.002	SRMR	.025	.003
FR	CFI		CFI	.000	CFI	.001	CFI	.001
	RMSEA		RMSEA	.001	RMSEA	.000	RMSEA	.000
	SRMR		SRMR	.004	SRMR	.000	SRMR	.000

Note. FA = Frustration of autonomy, FC = Frustration of competence, FR = Frustration of relatedness.

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Table A1

Rotated Factor Matrix of Concern over mistakes subscale 9 items

	Item (back-translated from Norwegian to English)	Factor 1	Factor 2
COM1	Coaches/teachers/peers will probably think less of me if I make a mistake.	.753	
COM2	If I do not do as well as other in my activity, it means I am an inferior being.	.803	
COM3	If I do not do well all the time in my activity, people will not respect me.	.744	
COM4	The fewer mistakes I make in my activity, the more people will like me.	.482	
COM5	If I fail at my activity, I feel like I am a failure as a person.		.571
COM6	I am usually upset if I make a mistake when I practice my activity.		.575
COM7	If someone does a task at my activity better than I do, then I feel as if I failed the whole task.		.594
COM8	If I fail partly fail in my activity, it is as bad as being a complete failure.		.798
COM9	I hate being less than the best at things in my activity.		.667

Note. Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization. Coefficients below .03 are suppressed.

Paper V

Haraldsen, H. M., Abrahamsen, F. E., & Halvari, H. (Submitted). Negotiating maladaptive motivational processes – How did elite junior performers from sports and performing arts experience to strive and survive? *Psychology of Sport and Exercise*.

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2

Negotiating Maladaptive Motivational Processes – How did Elite Junior

3

Performers from Sport and Arts Experience to Strive and Survive?

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Declarations of interest: none

17

Conflict of interest: none

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22

23

Abstract

24 Objectives: The current explanatory interview study of elite junior performers from sports and
25 performing arts aimed to investigate how performers facing a period of maladaptive
26 motivational processes negotiated with their situation.

27 Methods: We purposefully recruited eight participants between age 16-18 ($M = 17.31$, $SD =$
28 $.90$) that reported high scores on basic need frustration in a previous cross-sectional study.
29 The data was collected with semi-structured interviews and the analysis utilized by a
30 combination of deductive template analysis and narrative analysis.

31 Results: The results indicated that the process of becoming an elite performer is a unique and
32 emergent process of many personal, conditional, and situational factors interacting in time and
33 place. Furthermore, the mismatch between performers' vulnerable motivational mentality and
34 the performance-oriented and controlling conditions was clear and maladaptive, reported to
35 increase the risks of experiencing basic need frustration, diminished functioning, and ill-
36 being. In line with SDT tenets, performers demonstrating less self-determined functioning
37 were less likely to engage in effective coping and resilience processes.

38 Conclusions: The results supported the tenets of self-determination theory. Having a
39 vulnerable motivational mentality while operating in competitive and controlling talent
40 development conditions reduce the negotiation outlooks.

41 *Keywords:* Motivational processes; Self-determination theory; Talent development; Basic
42 needs frustration; Coping.

43

44

Introduction

45 Reaching the top in sports and performing arts entails stress and adversity (Hayward,
46 Knight, & Mellalieu, 2017; A. Hill, MacNamara, Collins, & Rodgers, 2016). For some young
47 elite performers, the price is too high, resulting in unfulfilled potential, drop out, and ill-being
48 (Rice et al., 2016; Rongen, Cobley, McKenna, & Till, 2014). The ability to cope, learn, and
49 develop in demanding talent development (TD) processes might be essential to develop, retain
50 mental health, and thrive (Mahoney, Ntoumanis, Mallett, & Gucciardi, 2014; Mouratidis &
51 Michou, 2011). According to self-determination theory (SDT; Ryan & Deci, 2017),
52 motivation might be a salient mental factor, likely to explain why some youth performers
53 cope and thrive from pressure, stressful situations, and adversity, whereas others struggle and
54 give in (Mahoney et al., 2014; Vansteenkiste & Ryan, 2013). Therefore, the purpose of the
55 current study was to explore, within the framework of Self-determination theory and through
56 qualitative in-depth inquiries, the multifaceted motivational process of elite youth performers
57 when they undergo a period of maladaptive functioning and striving.

58 Self-Determination Theory, Basic Psychological Needs, and Motivational Quality

59 Self-determination theory (SDT) is a meta-theory of motivation and personality that
60 propose people's innate tendency to growth seeking behavior and self-realization (Ryan &
61 Deci, 2017). Whether performers realize their natural growth-seeking tendencies, depend on
62 fundamental nutrients, of satisfaction or frustration of the three basic psychological needs,
63 respectively (Ryan & Deci, 2017; Vansteenkiste & Ryan, 2013). The need for autonomy
64 reflects the predisposition to act with authenticity and volition versus acting out of external
65 pressure or indirect manipulation. The need for competence captures the trend of expressing
66 and developing one's capabilities versus experiencing failure, stagnation, and inferiority.
67 Whereas, the need for relatedness echoes feelings of mutual connectedness to others versus
68 feelings of isolation and distance (Ryan & Deci, 2017; Vansteenkiste & Ryan, 2013). SDT

69 claims that persistent deprivation of any needs may have costs for optimal functioning and
70 well-being (Ryan & Deci, 2017; Vansteenkiste & Ryan, 2013). Hence, by exploring the
71 motivational processes of elite junior performers that report high levels of need frustration
72 might give important insight into maladaptive motivational processes.

73 Nurtured by the basic needs, SDT differentiates between three forms of motivation;
74 intrinsic, extrinsic, and amotivation. When intrinsically motivated, people are self-determined,
75 engaging in the activity out of enjoyment and interest. Extrinsic motivation exists of four
76 different types of regulations differentiated by the degree of self-determination (Ryan & Deci,
77 2017). When motivated by autonomous regulation, one involve in an activity with
78 authenticity, either because it is stimulating or meaningful (i.e., integrated regulation), or
79 personally important (identified regulation). In contrast, controlled motivation stems from
80 external or internal control and is less self-determined, motivated by obligation, guilt, or
81 shame (i.e., introjected regulation), or by demands, pressure, and reward (external regulation;
82 Bartholomew et al., 2018). Amotivation reflects performers that lack engagement, drive, or
83 meaning in their activity (Ryan & Deci, 2017). The motivational profile might be
84 multidimensional, and elite junior athletes are indicated to possess high levels of both
85 autonomous and controlled motivation (Gustafsson, Carlin, Podlog, Stenling, & Lindwall,
86 2018). Moreover, research has demonstrated that diverse composites of motivational
87 regulations differently relate to a range of outcomes (i.e., coping, anxiety, burnout), likely to
88 influence TD processes (Chu, Zhang, & Hung, 2018; Gustafsson et al., 2018; Quedsted, 2014).

89 **Contextual and Personal Determinants of Maladaptive Motivational Processes**

90 SDT acknowledge that optimal functioning is not always the case, and scholars have
91 gradually uncovered knowledge that illuminate the roots of maladaptive motivational
92 processes (Bartholomew et al., 2011; Haerens, Vansteenkiste, Aelterman, & Van den Berghe,
93 2016). According to SDT, social contexts create ambivalent conditions that can either nurture

94 or impede the performers' functioning (Haerens et al., 2018; Ryan & Deci, 2017). Teachers
95 that encourage self-initiative, provide relevant choices, and offer informative and constructive
96 feedback, characterize autonomy-supportive conditions (Haerens et al., 2016; Reeve, 2009).
97 Opposite, when teachers manipulate a preconceived way of feeling, thinking, or behaving,
98 forcing performers by the utilizing conditional regard, the conditions are considered
99 controlling (Assor, Kanat-Maymon, & Roth, 2014; Bartholomew et al., 2018; Haerens et al.,
100 2016). Unfortunately, controlling conditions seem to be quite common (Bartholomew et al.,
101 2018; Lakes, 2005; Pecen, Collins, & MacNamara, 2018), and relate to the elite junior
102 performers' risk of experiencing maladaptive motivational processes within TDEs (Haraldsen,
103 Halvari, Solstad, Abrahamsen, & Nordin-Bates, 2019; Haraldsen, Nordin-Bates, Abrahamsen,
104 & Halvari, accepted).

105 The between-person differences, on the other side, are inherent in the performers'
106 global self and motivational mentality (i.e., vulnerability or robustness), influencing how
107 performers interpret and react to their social contexts (Gustafsson, Sagar, & Stenling, 2017;
108 Mahoney et al., 2014). *Perfectionism* was brought in as a theoretical lens in the current study,
109 as it is a vulnerability disposition found to be common among elite performers (Dunn, Dunn,
110 & McDonald, 2012; Quested, 2014). Perfectionism reflects striving for high standards and
111 flawlessness (i.e., perfectionistic strivings), accompanied by harsh self-evaluation and
112 oversensitivity to mistakes (i.e., perfectionistic concerns; Hill, 2016). Perfectionism is
113 contradictory, found to nurture a strong drive (i.e. dedication and persistence), yet also, to
114 facilitate debilitating behavior patterns such as obsessiveness, inflexibility, avoidance
115 strategies, and controlled motivation (Stoeber, Damian, & Madigan, 2017; Stoeber, Otto,
116 Pescheck, Becker, & Stoll, 2007). Previous studies has indicated that perfectionism are
117 associated with basic need frustration (Mallinson & Hill, 2011), likely to be peaking within
118 stressful, competitive, and challenging TDEs (Kerr & Stirling, 2017; Rongen et al., 2014), as

119 well as in controlling conditions that exercise conditional regard (Authors, 2019 [deducted for
120 peer review]; Hill et al., 2016b). Hence, the TDEs represent conditions that might trigger
121 vulnerable dispositions in performers, increasing the odds of experiencing maladaptive
122 processes (Mallinson & Hill, 2011; Vansteenkiste & Ryan, 2013;).

123 **Negotiating Maladaptive Motivational Processes**

124 The performers' assessment of stressors and innate coping resources, determinate how
125 performers' respond to and cope with pressurized, stressful, and demanding situations (i.e.,
126 approach or avoidance, problem-focused or emotional-focused, active or passive; Gucciardi,
127 Stamatis, & Ntoumanis, 2017; Lazarus, 2000). Hence, the degree of self-determined
128 functioning may influence the way elite junior performers strive and survive when faced with
129 maladaptive motivational processes (Mahoney et al., 2014; Mouratidis & Michou, 2011).

130 Research on coping strategies typically shows that individuals seeing their conditions as
131 autonomy-supportive view their situations as more controllable (Mouratidis & Michou, 2011).
132 Thus, they are likely to perceive their situation as challenging and use active, problem-
133 focused, and approach coping strategies when negotiating their situation (i.e., proactive
134 planning; Lazarus, 2000; Mahoney et al., 2014). Whereas, those who are exposed to
135 controlling conditions and interpret their situations as less controllable, view stressors more
136 often as threatening, and are likely to engage in avoidance coping or reactive coping (i.e.,
137 emotional-focused) as defense against their situation (Lazarus, 2000; Mahoney et al., 2014).

138 Self-determined functioning has also been linked to resilience, proposing that more self-
139 determined performers are indicated to have a natural ability to adapt, resist, restore, and even
140 thrive from adversity (Radel, Pelletier, & Sarrazin, 2013; Vansteenkiste & Ryan, 2013). In
141 contrast, when basic needs are persistently frustrated, performers might instead engage in
142 need substitute behavior (i.e., seek status and popularity to compensate for inferiority) and

166 and ballet conservatoires). They had passed extensive selection procedures and had long
167 previous experience of deliberate practice ($M = 9.56$, $SD = 3.21$).

168 [Table 1 about here]

169 The study carried out after ethical approval by the state governed Norwegian Center
170 for Research Data. Access was gained through dialogue with the sport federations and leaders
171 of TD schools. The first author, whom had extensive lived experience of TDEs in dance (i.e.,
172 as performer, teacher, and teacher educator), contacted and recruited the participants directly
173 through email and phone. They received oral and written information about the study and
174 procedures to attain ethical concern and anonymity.

175 Face-to-face interviews by the first author was conducted in a location of the
176 participants' choice. The interviews were audio-recorded (range 66-154 min) and transcribed.
177 We used NVivo 11 to facilitate the analysis process. As asymmetric power relations are
178 present in all research with humans, steps to safeguard the participant were made (Tanggaard,
179 2009). First, the interviewer prepared for the role of a facilitator, active listener, and
180 supportive audience (Brinkmann & Kvale, 2008; Finlay, 2002). Second, we used an
181 interview-guide including a "warming up", and finally, member reflections regarding the
182 interview situation was attained. The intention was to get as open-minded and voluntary
183 reflections (Brinkmann & Kvale, 2008; Morrow, 2008).

184 **Data Collection**

185 We used semi-structured interviews where the general structure created a theoretically
186 framework. Participants were asked open-ended questions within each theme providing a fair
187 degree of freedom in what to talk about (Fereday & Muir-Cochrane, 2006). Additionally, we
188 asked follow-up questions to ensure that all aspects were covered, digging deeper into core
189 experiences that appeared during the interviews. The interview-guide covered topics as

190 motivational mentality and conditions, performance-development curve, person-environments
191 interactions, and motivational implications.

192 **Data Analysis**

193 We employed several strategies of data analysis guided by thematic and narrative
194 analysis (Smith & Sparkes, 2009). First, through initial phases, we familiarized with the
195 accounts by observing, reflecting, and intuitively experiencing the data. The reflections were
196 made both directly after the interviews and under the transcription process, and documented
197 in a journal. Next, transcripts were subjected to thematic analysis in order to identify, analyze,
198 organize, and interpret themes (Brooks, McCluskey, Turley, & King, 2015; Fereday & Muir-
199 Cochrane, 2006). We used the deductive method of *template analysis* (Brooks et al., 2015),
200 which emphasizes developing a gradually more refined hierarchical coding template, usually
201 consisting of four or more levels of detailed data (see Appendix). After familiarization, we
202 started with preliminary coding of all text, segment by segment, within a priori tentative
203 theme structure (i.e., tree nodes in NVivo). Then we organized the codes into meaningful
204 clusters and defined their hierarchically and lateral relationships. Next, we worked through
205 the coding template several times in an iterative process of refinement (i.e., redefinition,
206 restructuring, and deletion) until a rich and comprehensive representation of the interpreted
207 data was achieved (Brooks et al., 2015). During this process, analytical and reflecting memos
208 were written and related to the coding template. The memos represented tentative connections
209 and interpretations that guided peer-debriefing sessions, when connecting data to theoretical
210 concepts and research questions (Smith & Sparkes, 2009).

211 In addition to the template analysis focusing on *what* is told in the stories across the
212 accounts, it was important to also examine the holistic contextualization of the stories to make
213 sense of the data at a deeper level. Thus, we applied a narrative approach, focusing on the plot
214 and structure that made up the *why* and *when* of the stories. We searched for the unique

215 combinations of themes from the template, and the core driving elements underpinning
216 characterizations, development, and exits of the individual stories (Smith & Sparkes, 2009). It
217 was a more messy process, but it aided identify typologies within and across the narratives of
218 performers with similar reports and experiences (Smith & Sparkes, 2009).

219 **Quality and Rigor**

220 Acknowledging recent discussions regarding rigor and quality in qualitative research
221 (Smith & McGannon, 2017), criteria are viewed not as standards and rules, but values that
222 influence the dynamic judgment process behind prolonged engagement, authenticity,
223 reflexivity as well coherent quality of data (Sparkes & Smith, 2009). In order to underpin
224 *authenticity* of the participants accounts (Nowell, Norris, White, & Moules, 2017), we applied
225 strategies such as safeguarding and provision of exemplifying quotes in the results sections
226 (Nowell et al., 2017). Moreover, the first-author's own long-termed lived experience was
227 actively used as an asset to enhance contextualization, familiarization of implicit culture and
228 language-use, and access to nuances and deeper layers of the participants' experiences.
229 *Reflexivity* address the role of the researcher as an active component in the research process,
230 intertwined in the knowledge construction (Finlay, 2002). Reflexivity has helped in the
231 process of monitoring, coping with, and making transparent the representation of the
232 researcher from an inside (the arts) and outside (the sports) perspective (Berger, 2015). The
233 positionality affected the research process in different ways (i.e., access, interview process,
234 analysis, interpretation). To address these issues and deal with the positionality, we applied an
235 overall reflective journal that logged all the reflections and memos. The log was acting as
236 field notes and a critical friend that nurtured a meta-perspective of the research process. We
237 completed peer debriefing in all phases with supervisors and co-authors in order to develop
238 plausible interpretations and *coherence*. Coherence in qualitative research focuses on the
239 presentation and justification of the proposed knowledge claims (Smith & McGannon, 2017;

240 Sparkes & Smith, 2009). Overall, we tried to develop coherence by prolonged engagement
241 (i.e., 24 months long research process), lived experience from and collaboration with the
242 applied fields (i.e., meeting, lectures, seminars, and teacher/coach workshops), ethical
243 considerations, as well as extensive use of reflexivity and peer debriefing.

244 **Results**

245 The presentation of results are twofold. First, we present the TDEs (where) and the
246 motivational mentality (who), to provide a backdrop. Next, we focus on the negotiation
247 process as visualized in Figure 1. For the sake of brevity, the fully template analysis are
248 presented as supplemental material (see Appendix A). Direct quotes are marked by number
249 and domain (*a* = art, *s* = sport). Gender and activity are masked to retain anonymity.

250 [Figure 1 about here]

251 **The TDE's: "Talent Factories Aiming for the Top"**

252 The performers perceived their TDEs as highly performance-oriented, mainly focusing
253 on facilitating and producing top performers. As an athlete said: "It is always the time and the
254 result that count, not what you have developed" (6s). Favoring the best was also reported as
255 quite common: "It is a pressure to perform well ... then you got a good reputation, and you get
256 selected for performances and get more opportunities" (2a). This performance-focus
257 seemingly nurtured rivalry and contingent relatedness: "It is very competitive ... if you do not
258 perform well, it could be difficult to be socially accepted and included in social groups" (2a).

259 The TDEs were also described as being top-down, inflexible, and rather rigid. As an
260 athlete expressed: "It is a very system-driven activity. It is planned down to the tiniest detail,
261 and extreme coach-led activity ... It is the coach that makes the decisions" (6s). However, the
262 performers mainly supported these systems, as an art performer told: "I personally do not see
263 the point in having freedom to experiment and do my own things anyway" (1a).

264 Furthermore, the performers stated that they looked up to and respected the
265 teachers/coaches as authority figures: "My teacher is older and more experienced in the field.
266 Naturally, I respect and listen to her to a greater extent than vice versa" (1a). Asymmetric
267 power distribution was noticed: "The teachers have a lot of power. They, basically, can say
268 and get the students to do whatever they want. However, they do not always exploit their
269 position "(3a). In a follow up question of how this affected the performer' s behavior, the
270 student continued: "We have to adjust to the teachers' mood, taste, and comfort" (3a). The
271 relationship was reported as conditional and manipulating: "I know that she puts up a facade
272 to affect me psychologically, to get me to work harder or to perform better" (4a). This
273 controlling behavior was also reflected in the sport accounts:[my coach are pleased] "When I
274 listen to him ... Also, if I do not cause any trouble or oppose, but instead do as told and follow
275 instructions, or if I reach one of his goals" (5s).

276 The performers did also report many positive aspects from their TDEs. Despite the
277 controlling aspects, some of them highlighted having teachers or coaches that really cared and
278 devoted themselves to the performers' development and thriving: "I really love my teacher.
279 She is focused on my development and personally interested in my well-being" (1a). The
280 close relationships based on mutual trust and goals was perceived as being student-centered
281 and flexible: "My coach is tuned into me ... he invest in the relationship, he do not yell at my
282 mistakes, but instead, ask questions " (5s). Lastly, the performers reported to appreciate being
283 part of the prestigious and specialized TDEs: "It is a very thriving environment. Everybody
284 are interested and dedicated, and we are good friends, it nurtures joy and motivation" (2a).
285 **Motivational Mentality: "Who am I if I am Not a Successful Elite Junior Performer?"**

286 The performers reported to identify themselves with the activity. They had been active
287 for many years, and the activity played a significant role in their life. As one performer said:
288 "It is part of who I am, it has always been. It define what I am, what I can do, my priorities"

289 (6s). They also expressed that their activity affected their social status: "I found it so cool to
290 be an elite athlete ... it makes me feel good, I can prove myself, and I gain self-esteem" (5s).
291 Hence, when faced with adversity and failure, they struggled with retaining this identity: "I
292 get disappointed if I don't live up to the high expectations. Then I think; this is not me!" (5s).

293 A general trend across all participants was that they revealed vulnerability in their
294 motivational mentality, as presented in Table 1. All performers possessed dimensions of
295 perfectionism. However, art performers reported higher levels of the externally driven
296 concern over mistakes (i.e., related to fear of losing self-worth and social status), whereas
297 sport performers reported higher levels of the internally driven doubts about actions (i.e.,
298 over-achieving and occupied with details). All performers reported moderate to high levels of
299 perfectionistic strivings. The interview data confirmed these tendencies by expressions like: "I
300 seldom appreciate my achievements, no matter what I accomplish, I never feel satisfied" (3a),
301 (b) "I have a tendency to focus on the negative, I remember all the mistakes and all I could
302 have done better" (4a), or "I need to feel in control of my performances ... I practice over and
303 over again until I reach a feeling of perfection and control" (1a).

304 Most of the performers (except 5s) scored high on introjected and external regulations,
305 which also was reflected in the interviews. They expressed having developed an externally
306 driven motivation by statements such as: "Motivation is hard to control, if I perform well,
307 then I get motivated ... If I fail, then I get upset, and disappointed, and then, lose the
308 motivation" (8s). Introjected regulations were also reported: "I feel more important when I
309 perform well ... I feel that others do not appreciate me when I fail. The better I perform, the
310 more I am appreciated by others" (6s) and "If I don't do what is expected by me and work
311 hard, I do not deserve such a brilliant teacher, or positive attention and approval" (4k).

312 Interestingly, all performers reported also moderate to high levels of amotivation,
313 struggling somehow to find meaning and motivation in their current situation. Experiencing,

314 adversity (i.e., failure, injury, sickness) followed by a period of stagnation and set-backs,
315 triggered amotivation: "I get demotivated by not getting properly results out of all I invest ... I
316 kind of care less about all things, well, I still care, but I lack the ability to dedicate myself to
317 do what is necessary" (7s).

318 On the other side, the performers did also report motivational aspects linked to more
319 self-determined forms of motivation: "I love doing the activity, it has always been my thing ...
320 I get a magic feeling. When I am motivated, I find it pleasurable, and then I can find back to
321 that inner childish joy" (6s). Some performers also stated that they found their activity
322 meaningful and in line with their own values: "The art is giving me an extra dimension in life,
323 an extended perspective of the world ... it adds meaning to my life" (1a).

324 **Narratives of Negotiation**

325 *"Yes, I nailed it again"*. This narrative reflects performers that are challenged by a
326 combination of being highly ambitious, personally vulnerable, and operating within
327 pressurized TDEs. However, they are not faced with severe adversity or stagnation, and report
328 to be in a positive curve of performance development: "My performance-curve has been
329 positively steep. I have developed faster than normal and make development leaps" (8s).

330 The narrative reflects performers that are typically early identified talents - used to
331 early success, to lean on their natural talent, and to not have to put in a lot of effort to succeed:
332 "I had a good start; I had a natural talent and was way beyond my age group" (2a). These
333 performers express a lot of self-confidence, almost boastful, and seem mostly to enjoy the
334 process of becoming an elite performer. Overall, they report many positive experiences, of
335 thriving, positive emotions, and life satisfaction in general: "The activity plays an important
336 role in my life. I spend a lot of time on the activity and I like to practice it. I have close friends
337 here and I feel that it positively affect my quality of life" (8s).

338 However, the picture in this narrative is more ambivalent and twofold, beneath the
339 successful facade. Specifically, aspects of perfectionistic dimensions, controlled motivation,
340 and amotivation were expressed to nurture pressure, stress, fear of failure, performance
341 anxiety, and symptoms of burnout. Altogether, negative experiences likely to nurture their
342 malfunctioning reflected in the high reported levels of basic need frustration:

343 "I have doubts about my activity, I struggle to find the motivation to work hard ... It is
344 time consuming, I get stressed out and get into obsessive periods when I fall behind.
345 I get drained of energy and has to down prioritize other things ...Sometimes, I am
346 questioning if I really want to be a professional" (2a).

347 "***Just hanging in there.*** This narrative tells the story of performers that are operating
348 in the shadows of the typical "star students". They deviate from the typical elite performer by
349 lacking a clear inner drive and enjoyment. They are just hanging in there, because their
350 parents want them to perform; "I perform because I come from an artistic family ... If I could
351 chose again, I would probably have chosen something else" (4a). Alternatively, out of habit:
352 "My parents placed me into the studio, and I just continued. Now, it is a huge part of my life
353 ... Even though I have been really demotivated in some periods, I fancy no other alternatives"
354 (3a). Their curve of performance development has been slow, uneven, but positive. Yet, the
355 price has been high: "I started at the bottom, and have worked myself upwards. It has been
356 ups and downs as well, and I have faced some injuries earlier on following some setbacks ... It
357 has been a lots of flounders" (3a). They do also report to lack self-confidence, and of being
358 atypical within their contexts: "The characteristics that I hold, are atypical of an elite
359 performer. I am easily bored, I am not structured, I do not like to self-practice, I actually find
360 it boring and uninteresting" (4a).

361 This narrative reflects performers with low quality motivation being ambivalent and
362 externally driven: "My development are very instable, as my motivation. I work hard when

363 approaching an important performance and almost nothing in other periods" (4a). They seem
364 filled with avoidance strategies: "I try to avoid making mistakes and not look like an idiot"
365 (4a), concerned over mistakes: "I seldom experience feelings of mastery. There is always
366 something that is not perfect, to improve, and if only a tiny thing goes wrong, I often feel that
367 everything falls apart" (3a), and performance anxiety: "I get very nervous when I am about to
368 perform ... the anxiety transfers to my body, I get tense and stiff in my upper body, and it
369 negatively affects my artistic expression" (3a).

370 These performers seem to be holding a less prominent negotiation position, working
371 against the odds, reporting of many negative experiences and challenges. Trapped in a
372 negative and maladaptive motivational circle, the costs are high, and they balance on the edge
373 of burnout: "I feel exhausted all the time. Often, when I am exhausted, I feel numb. I do not
374 have the energy to do other things outside school" (3a). Despite the striving, the performers
375 do report of buffering elements. For instance, they manage to engage in emotional-based
376 coping strategies (i.e., shut down emotions and negative thoughts). Additionally, situations of
377 mastery and artistic involvement are stated as something that add situations of joy, flow, and
378 meaning: "When I perform in a show in front of an ordinary audience, not at auditions or
379 competitions, then I am mostly happy, I can feel afterwards I feel cheerful inside" (3a).

380 "*When the going gets tough*". The last narrative reflects performers that are facing a
381 lot of adversity and stagnation (i.e., injuries and setbacks): "I have been through a really tough
382 year. I experienced burnout, was exhausted, and performed poorly. Afterwards, I fell into a
383 bad circle of being injured, sick, and demotivated. It was mentally tough" (6s). These
384 performers have been successful (i.e., early-identified talents), and express being self-
385 confident. Facing a negative performance development challenge their identity and social
386 status: "I get disappointed and frustrated ... I feel ashamed and embarrassed" (5s). Quitting,

387 however, was not an option: "The activity is an important part of me, I could not just quit. It
388 would be as drastic as if I moved to Africa and left my family behind" (7s).

389 This narrative reflects performers with controlled motivation and doubts about actions.
390 However, they do not possess high levels of concern over mistakes. Instead, they demonstrate
391 having a lot of self-esteem: "My self-esteem is very good. When I was younger, I was
392 probably perceived as being cocky. I was not cocky as a person, but I had very good results"
393 (6s). Furthermore, their negative situation of being injured and the experience of being
394 helpless are reported as the core source of their basic need frustration, not internal
395 vulnerability. Hence, their struggle with amotivation: "I get indifferent when I am injured, and
396 feel that I am faced with a challenge that is impossible to accomplish ... I get mentally weak
397 and my body feels numb and heavy" (5s).

398 The narrative reveals many ways of negotiate with adversity. For instance, previous
399 experience with a lot of mastery and success accompanied by a strong desire to not let go of
400 the dream, helped them keep self-confident and in a fighting spirit: "I have what it takes to
401 succeed. I have the technical and tactical understanding, and may be a top performer if I am
402 willing ... and I am mentally strong, I seldom give in" (5s). Another negation factor was
403 having autonomous motivation and incidents of flow: "I still have happy days. They are
404 important as they make me feel good, strong, and alert" (5s). To have a break, look at the
405 activity from an outside perspective, and to be able to miss the activity due to absence caused
406 by injuries or sickness, was experienced as an access to re-set and re-focusing: "I just
407 competed for fun. I suddenly performed outstanding, got new records in all the distances. I
408 found back to that good feeling of flow" (6s). Equipped with self-confidence and hope, these
409 performers also demonstrated to use a range of coping strategies:

410 "If I fail, I use the next day to analyze how I can use the defeat to something positive
411 and learn from it ... I have also routines for eating, sleeping, and training, and I work a

412 lot with trying to stay positive and happy, to not be mentally dragged down ... I work
413 actively in front of competitions to be mentally prepared and tough I also use a
414 reflective log as a tool, I write a lot to clear my mind, especially before sleep" (5s).

415 **Discussion**

416 The purpose of the current study was to investigate how Norwegian elite junior
417 performers perceived and experienced maladaptive functioning and how they negotiated with
418 their situation. In this discussion, we will reflect upon the main overall findings that emerged
419 from the results and how they can contribute with new insight.

420 **The Notion of Emergence**

421 The findings supported results from previous research that emphasize the complex,
422 situated, and dynamic nature of TD processes (Aggerholm, 2014; Carless & Douglas, 2013;
423 Hodkinson, Biesta, & James, 2008). The performers' unique TD pathways and stories of
424 *becoming* mirrored how learning and development are relational, partly subconsciously, and
425 interwoven in situations of shifting contexts (Hodkinson et al., 2008). The notion of
426 emergence was a central finding, as the quality of the performers' negotiation process was
427 underpinned by the *sum* of contributing factors. In an emergent understanding, the parts joint
428 effect relate to each other in time and place, as visualized in Figure 1 (Nichol et al., 2017). In
429 line with the view of TD processes as open systems comprised with a myriad of factors and
430 unstable incidents (i.e., competition, re-selection, injuries, and sickness), the findings
431 generally showed that the TD processes were dynamic development loops rather than stable
432 and linear forward processes. Consequently, there is potential of encountering and restoring
433 maladaptive motivational functioning, where the degree of self-determined behavior seemed
434 to play an important role in the negotiation process (Mahoney et al., 2014).

435 **The Risks of Having a Vulnerable Motivational Mentality**

436 The results indicated that the performers' maladaptive functioning related to their
437 motivational mentality. Specifically, the findings revealed nuances in how aspects of
438 perfectionistic dimensions, controlled motivation, and amotivation interrelated and was
439 played out. Being perfectionistic made the performers more exposed; in constantly fear of not
440 living up to the high standards, putting their need for competence at risk. Specifically,
441 reported concern over mistakes was perceived as the most vulnerable and maladaptive
442 perfectionism dimension (Appleton & Curran, 2016; DiBartolo, Frost, Chang, LaSota, &
443 Grills, 2004). Aligned with previous studies, concern over mistakes seemed to relate to low
444 self-esteem and lack of self-confidence, and higher levels of introjected motivation, frustrated
445 competence, and shame (Eusanio, Thomson, & Jaque, 2014; Koivula, Hassmén, & Fallby,
446 2002). Whereas, doubts about actions and perfectionistic strivings were reported to be more
447 compatible with an intact self-esteem and retained self-confidence, likely to buffer
448 competence need frustration. Furthermore, the results showed that the degree of self-
449 confidence affected the negotiation process by nurturing sustained hope, endurance, and
450 motivation in the performers, as well as more self-determined and proactive negotiation.
451 Interestingly, the performers mostly perceived dimensions of perfectionistic striving as a
452 positive attribute, cultivating necessary drive, dedication, and performance development.
453 However, it also nurtured obsessive tendencies and overachievement, likely contributing to
454 the experiences of being on the edge of burnout. Overall, the results supported the diversity of
455 perfectionism dimensions (Hill et al., 2016b; Stoeber, Otto, Pescheck, Becker, & Stoll, 2007).

456 The performers in this interview study were recruited based on previously reported
457 basic needs frustrations, as such, in line with SDT tenets, they possessed elements of
458 controlled motivation and amotivation (Ryan & Deci, 2017). Introjected motivation was more
459 prevalent than external motivation and was accompanied by higher levels of perfectionism.
460 Another central finding was the prevalence of amotivation (Ryan & Deci, 2017). Many of the

461 performers expressed to have lost control over their current situation, lacking motivation to
462 engage in adaptive coping, as proposed by previous research (Mouratidis & Michou, 2011).
463 Amotivation is also found to be the motivational signature of burnout (Gustafsson et al.,
464 2018), a negative consequence experienced by most of the performers in the current study.

465 **The Triggering Effect of Controlling and Performance-Focused TDEs**

466 The findings identified many aspects of controlling TDEs. As reflected in the results,
467 controlling conditions are typically related to need frustration and in turn, more passive and
468 less growth-seeking behavior (Bartholomew et al., 2018; Haerens et al., 2016). Furthermore,
469 the controlling conditions were in many ways perceived as indirect and somewhat concealed
470 by the close relationships and the great admiration that the performers had to their coaches or
471 teachers. As such, putting the need for relatedness in conflict with the need for autonomy. The
472 performers themselves did not always disclose the conditional aspects explicitly, as they
473 sometimes tended to normalize their situation, or because they had not yet been disregarded
474 due to maintained success.

475 The dominant performance-focus in the TDEs was found to activate conditional
476 regard, which are indicated to trigger both perfectionism and controlled motivation (Assor et
477 al., 2014). As the most important negotiation capital in these TDEs seemed to be performance
478 level, the need for competence was especially at stake. Subsequently, the outlooks for getting
479 the need for relatedness (i.e., social status and support), and autonomy (i.e., gain trust and
480 flexibility) depended partially on achieved competence. Similar results are found in other
481 studies of Norwegian TDEs (Authors, 2019[deducted for peer review]; Stabell, 2018). In
482 general, the teachers or coaches possessed much power that were used in both positive and
483 negative manners. A risk factor is that performance-oriented cultures are more likely to
484 prioritize performance above a holistic development (Miller & Kerr, 2002), which, in turn,

485 could compromise performers' well-being and health (Hill et al., 2016a). Hence, it seems vital
486 in applied work to educate coaches and teachers from TDEs.

487 **Negotiating The Dark side of Talent Development**

488 The results revealed some general patterns of negotiation, of striving and surviving.
489 Performers with maladaptive motivational functioning and more prevalent perfectionistic
490 tendencies were more likely to involve in avoidance coping, reactivity coping, and to lack
491 coping strategies. Whereas, those reporting of more autonomous functioning and less
492 perfectionistic tendencies showed the most adaptive and proactive coping strategies. These
493 finding are in line with SDT postulates linking self-determined functioning to more successful
494 resilience and restoration (Mahoney et al., 2014; Mouratidis & Michou, 2011; Radel et al.,).
495 The results do also support previous research on perfectionism that has found associations
496 between perfectionism, and especially perfectionistic concerns, and maladaptive coping
497 (Doron & Martinent, 2017; Koivula et al., 2002). When the adversity was complex and felt
498 massive, however, a successfully negotiation seemed dependent not only on effective coping,
499 but on a range of buffering factors.

500 Generally, the mismatch between a vulnerable motivational mentality and
501 predominantly controlling and performance-focused TDEs was clearly maladaptive. In worst-
502 case scenario, performers are at risk of ending up with a failed negotiation, too many costs,
503 and unfulfilled potential. In a long-termed perspective, we worry that this could be a likely
504 outcome for several of the participants.

505 **Strengths and Limitations**

506 The richness of the qualitative data and complementary analysis methods are strengths
507 of this study. Additionally, the unique sample of striving (i.e., basic need frustration) elite
508 junior performers from several performance domains, gives exclusive insight into maladaptive
509 motivational processes. However, the sample size of only eight performers might be too small

510 to give a saturated picture of diverse negotiation narratives. Furthermore, we only rely on
511 interviews with performers (i.e., not triangulated with observations or leaders perspectives).
512 Nevertheless, these narratives should be viewed as indicative, as distinctive examples of the
513 complex negotiation processes that might occur when engaged in emergent processes of
514 *becoming* [an elite performer]. We encourage interpretation of findings in relation with other
515 relevant studies, as well as conduction of more qualitative studies in these contexts.

516 **Concluding Remarks**

517 The current study explored the motivational processes of elite junior performers while
518 negotiating a period of maladaptive functioning. The results revealed that the process of
519 becoming an elite performer is an emergent negotiating process determined by the
520 performer's motivational mentality (who), the conditions provided by the TDEs (where), and
521 the faced situational plots (when). The mismatch between performers with a vulnerable
522 motivational mentality and performance-oriented and controlling TDEs, was maladaptive,
523 increasing the risks of experiencing basic need frustration, diminished functioning, and ill-
524 being. Subsequently, in line with SDT tenets, the findings showed that the less self-
525 determined functioning, the less adaptive negotiation processes. In turn, likely to undermine
526 important resilience and restoration processes, and the ability to thrive from adversity. From
527 an applied perspective, it is important to be aware of the pressurized and exposed situation
528 elite junior performers in TDEs might experience and instead enhance autonomous
529 functioning and performance development alongside enjoyment, social relations, and diverse
530 arenas for learning, development, and well-being.

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707 Table 1:

708 Performers' score on dark side motivational variables at baseline

Variable	Mean (SD)*	1 art	2 art	3 art	4 art	5 sport	6 sport	7 sport	8 sport
Gender	4 F, 4 M	Masked for anonymity							
Age	17.31 (0.9)								
Fcomp	2.4 (1.4)	4.3	3.3	6.7	5.7	4.0	2.3	4.3	5.3
Faut	2.3 (1.4)	6.5	5.5	3.8	4.0	5.8	4.5	5.5	5.0
Frel	1.9 (1.3)	5.0	2.8	4.8	4.0	5.0	3.3	3.5	5.0
CM	3.6 (1.4)	4.8	4.6	5.9	4.1	3.1	3.0	3.0	5.1
DA	3.7 (1.3)	4.3	2.5	3.8	3.3	5.6	4.0	4.3	4.5
PS	5.3 (0.9)	6.2	3.8	4.3	4.5	4.5	5.8	4.3	5.2
Inj mot	3.1 (1.8)	7.0	5.0	5.0	3.3	3.0	5.0	5.0	4.3
Ext mot	2.0 (1.3)	6.0	4.3	1.5	4.0	1.0	4.3	6.3	3.5
Amotivation	2.1 (1.4)	5.3	5.0	2.8	3.6	4.0	3.8	4.3	3.5

709 Note. *reflective of the mean and standard deviation of the total survey sample (N = 171).
 710 Bold is used to mark values above the mean in the survey of elite junior performers. Fcomp =
 711 Competence need frustration, Faut = Autonomy need frustration, Frel = Relatedness need
 712 frustration, CM = Concerns over mistakes, DA = Doubts about actions, PS = Perfectionistic
 713 strivings, Aut mot = autonomous motivation (mean of integrated and identified motivation),
 714 Inj mot = Introjected motivation, Ext mot = External motivation. All measured at a Likert
 715 scale range 1-7.

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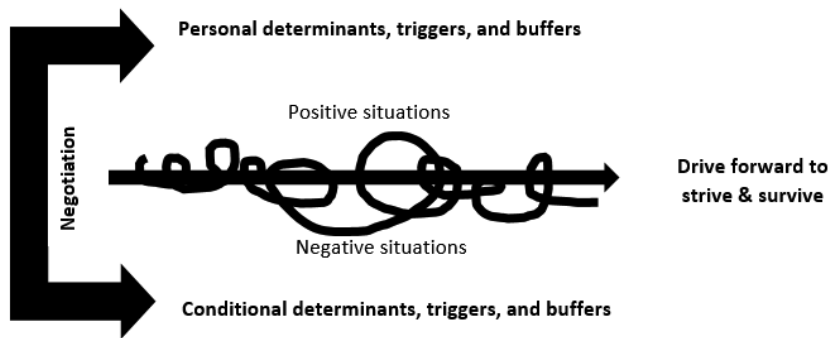


Figure 1. Negotiating processes in TDEs

Appendix A: Template Analysis of Negotiating the Dark side of Talent Development

1. TDEs "Talent factories aiming for the top"

1.1. Performance focus

- 1.1.1. High expectations and pressure
 - 1.1.1.1. High standards
- 1.1.2. Focus on results
- 1.1.2.1. Stress, fear of failure
- 1.1.3. Competitive & rivalry
- 1.1.3.1. Frustration of relatedness
 - 1.1.3.1.1. Negative emotions
- 1.1.4. Favoring the best
 - 1.1.4.1. Approval, selection
 - 1.1.4.2. Attention & benefits
- 1.1.5. Competence as currency
- 1.1.5.1. Success gives social status
- 1.1.5.2. Success gives benefits

1.2. Top-down and rigid system

- 1.2.1. Frustration of autonomy
 - 1.2.1.1. Just doing as told
 - 1.2.1.2. Following the scheme
 - 1.2.1.2.1. Inflexibility
 - 1.2.1.2.2. Obsessiveness
- 1.2.2. Lack of self-regulation
 - 1.2.2.1. Not encouraged to speak or reflect
 - 1.2.2.2. Not part of planning
 - 1.2.2.3. Not able to monitor or adjust to individual needs

1.3. Controlling coaching and teaching style

- 1.3.1. Asymmetric power distribution
- 1.3.1.1. Lack of relatedness & support
- 1.3.1.2. Lack of dialogue
- 1.3.2. Authoritarian & conditional
 - 1.3.2.1. Frustration of autonomy
 - 1.3.2.2. Stress, fear of failure

1.4. Relatedness & support (teacher/coach)

- 1.4.1. Close & caring
 - 1.4.1.1. really believes in me
 - 1.4.1.2. wants the best for me
- 1.4.2. Thriving work relationship
 - 1.4.2.1. Share the same goals
 - 1.4.2.2. Mutual trust

1.4.3. Individualization & flexibility

- 1.4.3.1. A good dialogue
- 1.4.3.2. Being seen & heard
- 1.4.3.3. Able to do things my own way

1.5. Specialized community

- 1.5.1. Sharing mutual interests
- 1.5.2. High social status
- 1.5.3. Friends & support

2. Motivational mentality "Who am I if I am not a successful elite junior performer?"

2.1. Identity at stake

- 2.1.1. Self-confidence as an identified talent
 - 2.1.1.1. Ambitious, a clear goal
 - 2.1.1.2. Social status
- 2.1.2. Identity crisis
 - 2.1.2.1. Loss of status & identity
 - 2.1.2.2. Lack of alternative identities

2.2. Trapped in a biased mindset of perfectionism

- 2.2.1. High standards
 - 2.2.1.1. Dedication & drive
 - 2.2.1.2. Self-discipline & endurance
- 2.2.2. Never satisfied
 - 2.2.2.1. Biased performance evaluation
 - 2.2.2.1.1. Self-critical
 - 2.2.2.1.2. Underestimating
 - 2.2.2.1.3. De-evaluate
 - 2.2.2.1.4. Monitoring for mistakes
 - 2.2.3. Concern over mistakes
 - 2.2.3.1. Fear of failure & rejection
 - 2.2.3.2. Shame
 - 2.2.4. Rigidity
 - 2.2.4.1. Obsessiveness
 - 2.2.4.2. Preciseness, occupied with details

2.3. Motivational quality

- 2.3.1. Inner drive and enjoyment
 - 2.3.1.1. Like the activity, interested
 - 2.3.1.2. Identify with the values
 - 2.3.1.3. Meaningful and thriving
- 2.3.2. External motivation
 - 2.3.2.1. Performance /result oriented

- 2.3.2.1.1. Focus on outperforming
- 2.3.2.1.2. Mastery & success nurture motivation

2.3.2.2. Expectations & pressure

- 2.3.2.2.1. Stress, fear of failure
- 2.3.2.3. Retain status & identity

2.3.3. Conditional motivation (introjected)

- 2.3.3.1. Self-esteem and self-confidence based on performance
- 2.3.3.2. Avoid disappointing other
 - 2.3.3.2.1. Bad consciousness
 - 2.3.3.2.2. Shame
- 2.3.4. Amotivation
 - 2.3.4.1. Ambivalent motivation
 - 2.3.4.1.1. Questioning if it is worth it
 - 2.3.4.2. Lack of meaning
 - 2.3.4.2.1. Just drifting along
 - 2.3.4.2.2. No others goals or alternatives

3. Development Process

3.1. "Yes, I nailed it again"

- 3.1.1. Mastery & success
 - 3.1.1.1. Positive curve of development
 - 3.1.1.1.1. Early identified talent & success
 - 3.1.1.1.2. Never really experienced adversity
- 3.1.1.2. Enjoy being one of the best
- 3.1.1.2.1. Cocky, self-confident
- 3.1.1.2.2. Social status

3.2. "Just hanging in there"

- 3.2.1. Slow, uneven, but positive curve of development
 - 3.2.1.1. Never been the best or star student, late bloomer
 - 3.2.1.2. Lack of self-confidence
 - 3.2.1.3. Working hard against the odds
 - 3.2.1.4. Fluctuations motivation
- 3.2.2. Controlled & ambivalent motivation
 - 3.2.2.1. Doing it for others (family)
 - 3.2.2.2. Desire another career

Appendix A: Template Analysis of Negotiating the Dark side of Talent Development

- 3.2.2.3. Feeling stress, expectations, pressure
 - 3.2.2.4. Just hanging in there
 - 3.2.2.4.1. Lack of enjoyment
 - 3.2.2.4.2. No other alternatives
 - 3.2.2.4.3. Indifferent
 - 3.3. "When the going gets tough"
 - 3.3.1. Negative performance development
 - 3.3.1.1. Stagnation & set-backs
 - 3.3.1.2. Overload, stress & burnout
 - 3.3.1.3. Injuries or illness
 - 3.3.2. Loss of social status & identity
 - 3.3.2.1. Early identified talent & success
 - 3.3.2.2. Identity crisis
 - 3.3.2.2.1. Who am I now?
 - 3.3.3. Frustration of relatedness
 - 3.3.3.1. New coach
 - 3.3.3.1.1. Busy
 - 3.3.3.1.2. Ignorant
 - 3.3.3.2. New peer group
 - 3.3.3.2.1. Conflicting, rivalry
 - 4. Negotiation
 - 4.1. Coping
 - 4.1.1. Proactive coping
 - 4.1.1.1. Problem-focused
 - 4.1.1.1.1. Focus on learning & development
 - 4.1.1.1.2. Analyze, eliminate failures & weaknesses
 - 4.1.1.1.3. Controlling nutrition, sleep & restitution
 - 4.1.1.2. Emotional-focused
 - 4.1.1.2.1. Positive self-talk
 - 4.1.1.2.2. Visualizing
 - 4.1.2. Reactive coping
 - 4.1.2.1. Emotional-focused
 - 4.1.2.1.1. Routines for stress & anxiety management
 - 4.1.2.1.2. Positive self-talk
 - 4.1.2.1.3. Breathing & body control
 - 4.1.2.2. Avoidance coping
 - 4.2. Mastery & success
 - 4.2.1. Nurture self-confidence
 - 4.2.1.1. Increase motivation & hope
 - 4.2.1.2. Increase social status
 - 4.2.2. Inform about strategies, competence, development, learning
 - 4.2.3. Flow experiences
 - 4.2.3.1. Deep enjoyment
 - 4.2.3.2. Feeling good, strong, great
 - 4.2.3.3. Deeply meaningful
 - 4.3. Supported when needed the most
 - 4.3.1. Always there and engaged in me
 - 4.3.2. Adjust to performers needs
 - 4.4. Positive stimuli outside the activity
 - 4.4.1. Other areas of mastery
 - 4.4.2. A place to "escape" to
 - 4.4.3. Nurturing relatedness
 - 4.4.4. Feeling good & have fun
 - 4.4.5. Social status transferred
 - 4.5. Positive experiences: "I still love my activity, despite all"
 - 4.5.1. Thriving & using one's inner potential
 - 4.5.1.1. Stretching/pushing one's limits
 - 4.5.1.2. Self-confidence & self-esteem
 - 4.5.1.3. Deeply meaningful & rich life
 - 4.5.1.4. Identity development
 - 4.5.2. Positive emotional states, when:
 - 4.5.2.1. Being outdoor, at stage, traveling to events
 - 4.5.2.2. Reaching mastery & success
- 4.6. Negative experiences "Sometimes, it is just so hard"
 - 4.6.1. Negative mood & Emotional state, when
 - 4.6.1.1. Experienced a bad day, mistakes
 - 4.6.1.2. Stressed out & tired
 - 4.6.1.3. Disappointing others
 - 4.6.1.4. Injured, sick
 - 4.6.1.5. Private personal problems
 - 4.6.2. Stress, pressure, performance anxiety
 - 4.6.2.1. Worry, fear of failure
 - 4.6.2.2. Lack of self-confidence
 - 4.6.2.3. Frustration of competence
 - 4.6.2.4. Nurture obsessiveness
 - 4.6.3. Lack of restitution & burnout
 - 4.6.3.1. Being tired all the time
 - 4.6.3.2. Feeling exhausted
 - 4.6.3.3. Not energy to do anything else
 - 4.6.3.4. Too much on the schedule, stress
 - 4.6.4. Injuries, pain, sickness
 - 4.6.4.1. Falling behind
 - 4.6.4.2. Teacher/coach frustrated
 - 4.6.4.3. Hard to cope with
 - 4.6.4.4. Increased stress level due to fear of future injuries
 - 4.6.5. Missing out on things in life in general
 - 4.6.5.1. High price to pay
 - 4.6.5.2. Decreased life satisfaction
 - 4.6.5.3. Miss being a normal teenager
- 4.5.2.3. Working hard, live up to expectations, get approval
- 4.5.2.4. Being with friends
- 4.5.3. Benefits transferred to life in general
 - 4.5.3.1. Learn useful skills
 - 4.5.3.2. Getting physical shape & health
 - 4.5.3.3. Develop good values & ethics

List of Appendices

1. Approval letter from the Norwegian Centre for Research Data study 1
2. Approval letter from the Norwegian Centre for Research Data study 2
3. Approval letter from the Norwegian Centre for Research Data study 3 and 4
4. Information letter to participants study 1
5. Information letter to participants study 2
6. Information letter to participants study 3
7. Information letter to participants study 4
8. Interview-guide study 1
9. Questionnaire study 2
10. Questionnaire study 3
11. Interview-guide study 4



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0806 OSLO

Vår dato: 30.05.2016

Vår ref: 48568 / 3 / AH

Deres dato:

Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 04.05.2016. Meldingen gjelder prosjektet:

48568 *Developing young performers from arts and sports: The role of personal motivational variables and learning context characteristics*
Behandlingsansvarlig *Norges idrettshøgskole, ved institusjonens øverste leder*
Daglig ansvarlig *Heidi Marian Haraldsen*

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 31.07.2019, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Kjersti Haugstvedt

Åsne Halskau

Kontaktperson: Åsne Halskau tlf: 55 58 21 88

Vedlegg: Prosjektvurdering

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Personvernombudet for forskning



Prosjektvurdering - Kommentar

Prosjektnr: 48568

Personvernombudet legger til grunn at taushetsplikten ikke er til hinder for førstegangskontakt og rekruttering. Utvalget informeres skriftlig og muntlig om prosjektet og samtykker til deltakelse. Informasjonsskrivet er godt utformet.

Personvernombudet legger til grunn at forsker etterfølger Norges idrettshøgskole sine interne rutiner for datasikkerhet.

Det oppgis at personopplysninger skal publiseres. Personvernombudet legger til grunn at det foreligger eksplisitt samtykke fra den enkelte til dette. Vi anbefaler at deltakerne gis anledning til å lese igjennom egne opplysninger og godkjenne disse før publisering.

Forventet prosjektslutt er 31.07.2019. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:

- slette direkte personopplysninger (som navn/koblingsnøkkel)
- slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn)
- slette digitale lyd-/bilde- og videoopptak



Heidi Marian Haraldsen
Seksjon for coaching og psykologi Norges idrettshøgskole
Postboks 4014 Ullevål Stadion
0806 OSLO

Vår dato: 10.05.2017

Vår ref: 53471 / 3 / MSS

Deres dato:

Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 07.03.2017. Meldingen gjelder prosjektet:

53471 *Motivasjonsprosesser hos unge utøvere i talentutvikling setting i kunst og idrett*
Behandlingsansvarlig *Norges idrettshøgskole, ved institusjonens øverste leder*
Daglig ansvarlig *Heidi Marian Haraldsen*

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvernombud/meld_prosjekt/meld_endringer.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 31.07.2019, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Kjersti Haugstvedt

Marie Strand Schildmann

Kontaktperson: Marie Strand Schildmann tlf: 55 58 31 52

Vedlegg: Prosjektvurdering

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Personvernombudet for forskning



Prosjektvurdering - Kommentar

Prosjektnr: 53471

Prosjektet er meldt inn med Norges idrettshøgskole som behandlingsansvarlig institusjon. Det fremgår imidlertid at det er et samarbeid mellom Norges idrettshøgskole og Kunsthøgskolen i Oslo, og at sistnevnte institusjon finansierer 75% av prosjektet. Personvernombudet anbefaler at denne behandling/ansvarsfordeling formelt er avklart mellom institusjonene og anbefaler at det utarbeides en avtale som blant annet omfatter ansvarsfordeling, ansvarsstruktur, hvem som initierer prosjektet, bruk av data og eventuelt eierskap.

Formålet med prosjektet er å undersøke og sammenligne hvordan læringskonteksten/treningskultur i talentutviklingskoler/program i kunst (ballett og klassisk musikk) kontra idrett påvirker utøvernes motivasjonsprosesser og i neste omgang utøvernes prestasjonsnivå og psykiske velvære/helse (well-being). Formålet er å få evidensbasert kunnskap for hvordan i bedre grad fasilitere talentutviklingsprogram der prestasjoner og psykisk helse går hånd i hånd.

Utvalget består av talentfulle unge utøvere som er elever i alderen 16-19 år ved ledende skoler i sine fagfelt. Utvalget informeres skriftlig og muntlig om prosjektet og samtykker til deltakelse. Det er lagt opp til at skolene leverer ut lister med kontaktinformasjon til elevene. Vi antar at skolene ikke uten videre kan utlevere slike opplysninger og gjør oppmerksom på at dette bør undersøkes. Alternativt bør forespørsel om deltakelse formidles til elevene via skolen.

Informasjonsskrivet er godt utformet. På bakgrunn av prosjektets formål og opplysningenes art, finner personvernombudet at unge i alderen 16-18 år kan samtykke til egen deltakelse.

Det er personvernombudets vurdering at det vil behandles sensitive personopplysninger om helseforhold, jf. personopplysningsloven § 2, punkt 8 c).

Personvernombudet legger til grunn at forsker etterfølger Norges idrettshøgskole sine interne rutiner for datasikkerhet. Dersom personopplysninger skal sendes elektronisk, bør opplysningene krypteres tilstrekkelig.

Dersom SurveyXact er databehandler i forbindelse med innhenting av spørreskjemadata i prosjektet skal Norges idrettshøgskole inngå skriftlig avtale med SurveyXact om hvordan personopplysninger skal behandles, jf. personopplysningsloven § 15. For råd om hva databehandleravtalen bør inneholde, se Datatilsynets veileder: <http://www.datatilsynet.no/Sikkerhet-internkontroll/Databehandleravtale/>.

Forventet prosjektslutt er 31.07.2019. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres, før anonyme data lagres videre for bruk i nye studier.

Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:

- slette direkte personopplysninger (som navn/koblingsnøkkel)

- slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. navn på skole, idrettsgren/kunstform, alder og kjønn)

Vi gjør oppmerksom på at også databehandler (SurveyXact) må slette personopplysninger tilknyttet prosjektet i sine systemer. Dette inkluderer eventuelle logger og koblinger mellom IP-/epostadresser og besvarelser.



Heidi Marian Haraldsen
Postboks 4014 Ullevål stadion
0806 OSLO

Vår dato: 04.10.2017

Vår ref: 55635 / 3 / EPA

Deres dato:

Deres ref:

Tilbakemelding på melding om behandling av personopplysninger

Vi viser til melding om behandling av personopplysninger, mottatt 01.09.2017.
Meldingen gjelder prosjektet:

| | |
|-----------------------------|---|
| <i>55635</i> | <i>Motivasjonsprosesser hos unge utøvere i talentutviklingsetting i kunst og idrett</i> |
| <i>Behandlingsansvarlig</i> | <i>Norges idrettshøgskole, ved institusjonens øverste leder</i> |
| <i>Daglig ansvarlig</i> | <i>Heidi Marian Haraldsen</i> |

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database.

Personvernombudet vil ved prosjektets avslutning, 30.06.2018, rette en henvendelse angående status for behandlingen av personopplysninger.

Dersom noe er uklart ta gjerne kontakt over telefon.

Vennlig hilsen

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Marianne Høgetveit Myhren

Eva J. B. Payne

Kontaktperson: Eva J. B. Payne tlf: 55 58 27 97 / eva.payne@nsd.no

Vedlegg: Prosjektvurdering



SAMARBEIDSSSTUDIE

Ifølge meldeskjemaet er Norges idrettshøgskole behandlingsansvarlig institusjon for dette prosjektet, som er en del av en større samarbeidsstudie mellom Kunsthøgskolen i Oslo (75%) og Norges Idrettshøgskole (25%). Personvernombudet forutsetter at ansvaret for behandlingen av personopplysninger er avklart mellom institusjonene. Vi anbefaler at det inngås en avtale som omfatter ansvarsfordeling, ansvarsstruktur, hvem som initierer prosjektet, bruk av data og eventuelt eierskap.

FORMÅL

Formålet er å undersøke og sammenligne hvordan læringskonteksten/treningskultur i høyt presterende talentprogram innenfor ballett, klassisk musikk og idrett påvirker utøvernes motivasjonsprosesser og i neste omgang deres prestasjoner og psykiske velvære/helse (wellbeing/illbeing).

INFORMASJON OG SAMTYKKE

Utvalget informeres skriftlig og muntlig om prosjektet og samtykker til deltakelse. Informasjonsskrivet er godt utformet, men vi ber om at følgende endres/tilføyes:

- endre prosjektslutt til 30.06.2018. jf. informasjonen i meldeskjemaet.
- informanter som intervjues må få tilsvarende informasjon, muntlig eller skriftlig.

Ungdommer 16-17 år skal selv samtykke til deltagelse. Ut fra en helhetsvurdering av opplysningenes art og omfang, vurderer personvernombudet det imidlertid slik at ungdommer 16-17 år har forutsetninger for å forstå hva deltagelse innebærer og kan samtykke til deltagelse på selvstendig grunnlag.

SENSITIVE OPPLYSNINGER

Personvernombudet har vurdert at det behandles sensitive personopplysninger om helseforhold (psykisk velvære/helse).

OBSERVASJON

Det står ikke informasjon om observasjon i informasjonsskrivet. Personvernombudet forutsetter at dersom observasjon brukes som metode for å samle inn personopplysninger, skal det innhentes informert samtykke til dette.

INFORMASJONSSIKKERHET

Personvernombudet legger til grunn at forsker etterfølger Norges idrettshøgskole sine interne rutiner for datasikkerhet. Dersom personopplysninger skal sendes elektronisk, bør opplysningene krypteres tilstrekkelig.

DATABEHANDLER

Siden SurveyXact digitalt skal brukes for å gjennomføre spørreundersøkelsen, er de databehandler for prosjektet. Ifølge meldeskjemaet har NiH institusjonsavtale med SurveyXact. Personvernombudet forutsetter at avtalen dekker hvordan personopplysninger skal behandles, jf. personopplysningsloven § 15.

PROSJEKTSLUTT OG ANONYMISERING

Forventet prosjektslutt er 30.06.2018. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:

- slette direkte personopplysninger (som navn/koblingsnøkkel)
- slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn)
- slette lydopptak

Forespørsel om deltakelse i forskningsprosjektet

”Betydningen av motivasjonsprosesser i unge utøvere i kunst og idrett”

Delstudie 1

Bakgrunn og formål

Formålet ved prosjektet er å undersøke og sammenligne interaksjonen mellom motivasjonsprofiler i unge utøvere og motivasjonsklimaet i læringsmiljøet innenfor høyt presterende talentutdanninger i kunst og idrett. Læringskontekstens rolle og betydning for utøvernes psykisk helse og prestasjon er i fokus. Prosjektet er del av Heidi Haraldsens doktorgradsstudie ved seksjon for coaching og psykologi ved Norges Idrettshøgskole i samarbeid med Kunsthøgskolen i Oslo.

Prosjektet sikter seg inn mot talentfulle unge utøvere som er elever ved ledende skoler i sine fagfelt, parallelt med videregående skoleløp. Utvalget er formålstjenlig valgt ut og sikter seg inn på en spesiell type utøvere, innenfor ulike læringskulturer og domener. Kunsthøgskolens studieprogram for klassisk ballett, Barrat Dues program Unge Talenter i samarbeid med musikklinja på Edvard Munch vgs. og landslagutøvere på juniorlandslag i individuelle idretter i Norge som er elever ved et toppidrettsgymnas er valgt ut som settinger.

I tillegg vil det ene delstudiet også rette seg mot profesjonelle og etablerte utøvere innenfor ballett, klassisk musikk og toppidrett som har erfaring og bakgrunn fra slike videregående skoleløp.

Hva innebærer deltakelse i studien?

Deltakelse i studien innebærer å stille til et dybdeintervju som skal omhandle din erfaring og refleksjon rundt utøverutdanningen din og læringsmiljøet der, med fokus på temaer som motivasjon, prestasjon og trivsel.

Intervjuet vil bli tatt opp på en lydfil og transkribert til tekst i etterkant.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt og anonymiseres. Det er kun stipendiaten, hennes veileder og samarbeidspartner som får tilgang til rådataene og hvilke utøvere som er intervjuet. Dataene vil lagres på Norges Idrettshøgskoles server, og ikke på lokale maskiner og lydfile vil bli slettet i etterkant av doktorgraden.

Siden utøvermiljøet likevel er lite i Norge, kan det være en risiko for å bli gjenkjent internt tross anonymisering. Deltakerne vil få mulighet til gjennomlesning av transkribering og justering av uttalelser, og kan når som helst trekke seg fra prosjektet, også etter at intervjuene er ferdige.

Prosjektet skal etter planen avsluttes 31.07.2019. Transkriberingstekst fra intervjuene vil bli lagret anonymisert på en server, og det er kun stipendiaten som vil ha tilgang til disse dataene i ettertiden. Personopplysninger vil ikke kunne kobles til disse lagrede dataene. Datamateriale arkiveres da de kan ha interesse inn i videre forskning på feltet.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert.

Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med Heidi Haraldsen (92096066 eller heidi.haraldsen@nih.no) eller veileder Frank Abrahamsen (94188982 eller f.e.abrahamsen@nih.no).

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta

(Signert av prosjektdeltaker, dato)

Forespørsel om deltakelse i forskningsprosjektet

” Betydningen av motivasjonsprosesser i unge utøvere i kunst og idrett”

Delstudie 2

Bakgrunn og formål

Formålet ved prosjektet er å undersøke og sammenligne hvordan unge eliteutøvere erfarer og opplever læringsmiljøet og treningskulturen innenfor høyt presterende talentutdanninger i kunst og idrett. Læringskontekstens rolle og betydning for utøvernes motivasjon, prestasjon og psykiske helse er i fokus. Prosjektet er del av Heidi Haraldsens doktorgradsstudie ved seksjon for coaching og psykologi ved Norges Idrettshøgskole i samarbeid med Kunsthøgskolen i Oslo.

Prosjektet sikter seg inn mot talentfulle unge utøvere som er elever ved ledende skoler/landslag i sine fagfelt, parallelt med videregående skoleløp. Utvalget er formålstjenlig valgt ut og sikter seg inn på en spesiell type utøvere, innenfor ulike læringskulturer og domener. Kunsthøgskolens studieprogram for klassisk ballett, Barrat Dues program Unge Talenter og landslagutøvere på junior-/seniorlandslag i individuelle idretter i Norge er valgt ut som settinger.

Hva innebærer deltakelse i studien?

Deltakelse i studien innebærer å svare på et digitalt spørreskjema som skal omhandle din erfaring og refleksjon rundt utøverutdanningen din og læringsmiljøet der, med fokus på temaer som motivasjon, prestasjon, utfordringer og trivsel.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt og anonymiseres. Det benyttes koblingsnøkkel mellom deltaker og spørreskjema, som innebærer at ingen personopplysninger er knyttet direkte opp mot dataene. Koblingsnøkkel lagres og oppbevares separat fra dataene, og det er kun stipendiaten som har tilgang på denne. Dataene vil lagres på Norges Idrettshøgskoles server og følge institusjonens prosedyrer for datasikring og datalagring, og det er kun stipendiaten som vil ha tilgang til disse dataene i ettertiden. Personopplysninger vil ikke kunne kobles til disse lagrede dataene. Prosjektet skal etter planen avsluttes 31.07.2019. Datamateriale arkiveres da de kan ha interesse inn i videre forskning på feltet.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert. Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med Heidi Haraldsen (92096066 eller heidi.haraldsen@nih.no) eller veileder Frank Abrahamsen (94188982 eller f.e.abrahamsen@nih.no).

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Forespørsel om deltakelse i forskningsprosjektet

” Betydningen av motivasjonsprosesser i unge utøvere i kunst og idrett ”

Delstudie 3

Bakgrunn og formål

Formålet ved prosjektet er å undersøke og sammenligne hvordan unge eliteutøvere erfarer og opplever læringsmiljøet og treningskulturen innenfor høyt presterende talentutdanninger i kunst og idrett. Læringskontekstens rolle og betydning for utøvernes motivasjon, prestasjon og psykiske velvære er i fokus. Prosjektet er del av Heidi Haraldsens doktorgradsstudie ved seksjon for coaching og psykologi ved Norges Idrettshøgskole i samarbeid med Kunsthøgskolen i Oslo.

Prosjektet sikter seg inn mot talentfulle unge utøvere som er elever ved ledende skoler/landslag i sine fagfelt, parallelt med videregående skoleløp. Utvalget er formålstjenlig valgt ut og sikter seg inn på en spesiell type utøvere, innenfor ulike læringskulturer og domener. Kunsthøgskolens studieprogram for klassisk ballett, Barrat Dues program Unge Talenter og landslagutøvere på junior-/seniorlandslag i individuelle idretter i Norge er valgt ut som settinger.

Hva innebærer deltakelse i studien?

Deltakelse i studien innebærer å svare på tre digitale spørreskjema over en periode på 9 måneder. Spørsmålene vil omhandle din erfaring og refleksjon rundt utøverutdanningen din og læringsmiljøet der, med fokus på temaer som motivasjon, prestasjon, trivsel og eventuelle utfordringer.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt og anonymiseres. Det benyttes koblingsnøkkel mellom deltaker og spørreskjema, som innebærer at ingen personopplysninger er knyttet direkte opp mot dataene. Koblingsnøkkel lagres og oppbevares separat fra dataene, og det er kun stipendiaten som har tilgang på denne. Dataene vil lagres på Norges Idrettshøgskoles server og følge institusjonens prosedyrer for datasikring og datalagring, og det er kun stipendiaten som vil ha tilgang til disse dataene i ettertiden. Prosjektet skal etter planen avsluttes 31.07.2019. Datamateriale arkiveres da de kan ha interesse inn i videre forskning på feltet, men personopplysningene slettes.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert. Dersom du har spørsmål til studien, ta kontakt med Heidi Haraldsen (92096066 eller heidi.haraldsen@nih.no) eller veileder Frank Abrahamsen (94188982 eller f.e.abrahamsen@nih.no).

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Forespørsel om deltakelse i forskningsprosjektet

” Betydningen av motivasjonsprosesser i unge utøvere i kunst og idrett ”

Delstudie 4

Bakgrunn og formål

Formålet ved prosjektet er å undersøke og sammenligne hvordan unge eliteutøvere erfarer og opplever læringsmiljøet og treningskulturen innenfor høyt presterende talentutdanninger i kunst og idrett. Læringskontekstens rolle og betydning for utøvernes motivasjon, prestasjon og psykiske velvære er i fokus. Prosjektet er del av Heidi Haraldsens doktorgradsstudie ved seksjon for coaching og psykologi ved Norges Idrettshøgskole i samarbeid med Kunsthøgskolen i Oslo.

Prosjektet sikter seg inn mot talentfulle unge utøvere som er elever ved ledende skoler/landslag i sine fagfelt, parallelt med videregående skoleløp. Utvalget er formålstjenlig valgt ut og sikter seg inn på en spesiell type utøvere, innenfor ulike læringskulturer og domener. Kunsthøgskolens studieprogram for klassisk ballett, Barrat Dues program Unge Talenter og landslagutøvere på junior-/seniorlandslag i individuelle idretter i Norge er valgt ut som settinger.

Hva innebærer deltakelse i studien?

Deltakelse i studien innebærer å stille til 2 personlige dybdeintervjuer samt bli observert i relevante treningssituasjoner. Spørsmålene vil omhandle din erfaring og refleksjon rundt utøverutdanningen din og læringsmiljøet der, med fokus på temaer som motivasjon, prestasjon, trivsel og eventuelle utfordringer. Observasjonen vil omfatte ulike sider ved din treningskultur som fagspesifikk trening, fysisk trening, testing og konkurransesituasjon.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt og anonymiseres. Ingen personopplysninger vil bli knyttet direkte opp mot dataene (lydfiler, observasjonslogger, transkribert tekst). Dataene vil lagres på Norges Idrettshøgskoles server og følge institusjonens prosedyrer for datasikring og datalagring, og det er kun stipendiaten som vil ha tilgang til disse dataene i ettertiden. Prosjektet skal etter planen avsluttes 31.07.2019. Datamateriale arkiveres da de kan ha interesse inn i videre forskning på feltet, men personopplysningene slettes.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert.

Dersom du har spørsmål til studien, ta kontakt med Heidi Haraldsen (92096066 eller heidi.haraldsen@nih.no) eller veileder Frank Abrahamsen (94188982 eller f.e.abrahamsen@nih.no).

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta

(Signert av prosjektdeltaker, dato)

Intervjuguide studie 1. Et kvalitativt retrospektivt studie av profesjonelle utøveres erfaring med sin utdanning i talentprogrammer innenfor ballett, musikk og idrett.

Form:

Eksplorende hensikt. Induktiv tilnærming strukturert rundt åpne *temaspørsmål* med tilhørende oppfølgingsspørsmål. Temaspørsmål går ut på å presentere et tema og be testpersonen fortelle om dette. Når deltakeren har fortalt så mye som mulig på egenhånd, vil intervjuer supplere med en del oppfølgingsspørsmål – både planlagte og spontane.

Forskningsspørsmål knyttet til studie 1, oversatt fra prosjektbeskrivelsen:

Hvordan opplevde de profesjonelle utøverne sin motivasjonsprosess (interaksjonen mellom personlige disposisjoner og motivasjonsklima) og hvordan påvirket dette utøvernes opplevelse av egen motivasjon, prestasjon og psykisk velvære?

Underspørsmål:

Hva kjennetegner utøvernes beskrivelse av egen motivasjon?

Tema: motivasjonsprofil hos utøver

Hva kjennetegner utøvernes beskrivelse av læringskulturen i tidligere utdanning?

Tema: motivasjonsklima i utdanningsmiljøet

Hvordan erfarte utøverne samsvar mellom egen motivasjon og trekk i læringskulturen?

Tema: grad av utøversentrering og tilpasning til utøvers behov

Hvordan påvirket samsvar/manglende samsvar utøvernes opplevelse av motivasjon, prestasjon og psykiske velvære?

Tema: konsekvens for utøverne (utbytte)

Fase 1: Rammesetting (ca. 10 minutter)

1. Løst prat

- Uformell prat
- Har testpersonen deltatt i slike undersøkelser tidligere?

2. Informasjon

- Presentere intervjuer
- Presentere undersøkelsen
- Forklare hva et personlig intervju er og hvor mange intervjuer som er planlagt
- Forklare hva som er intervjuers oppgave
- Orienter kort om hva som er deltakerens oppgave
- Orienter kort om strukturen på intervjuet
- Er det ord og uttrykk i spørsmålet du ikke forstår, så må du si fra underveis.

3. Formaliteter

- Ta opp på lydopptak, forklare hvorfor
- Samtykke i å gjøre opptak
- Har testpersonen noen spørsmål før vi starter?

4. Demografiske spørsmål:

Kvinne Mann Alder

Hvor lenge har du holdt på med aktiviteten (startet ved hvilken alder)?
Hvor mange timer bruker du på aktiviteten hver uke?
Hvor lenge har du vært profesjonell utøver (livnært deg av dette/hovedgjøft i livet)

Fase 2: Fokusering (ca. 60 minutter)

Tema: Din motivasjon som utøver (Hva kjennetegner utøvernes beskrivelse av egen motivasjon?)

Hvorfor begynte du å danse ballett /spille dette instrumentet / med denne idretten og hvorfor valgte du å fortsette og satse for fullt i ungdomsårene (Balletthøgskolen/Barrat Due/ NTG)?

Hvorfor lyktes akkurat du?

Oppfølgingsspørsmål:

Vil du si det var mest ditt eget valg eller andres valg? (Forklar hvorfor du opplever det slik)

Hva tenker du kjennetegner en utøver (ballettdanser/ musiker/ idrettsutøver) som er godt motivert?

Vil du beskrive deg selv som godt motivert den gangen? Hvorfor /hvorfor ikke?

Hvilke egenskaper har du som har bidratt til at du har lyktes? Hva er dine styrker og hva er dine svakheter?

Hva var målene dine når du var på trening og når du konkurrerte/stod på scenen den gangen? Hva ønsket du å oppnå?

Sitter du igjen med en opplevelse av at du ofte mestret eller ofte feilet den gangen? Hvorfor?

Hva var dine utfordringer den gangen?

Opplevde du at du hadde den kompetansen du trengte for å gjennomføre oppgavene dine?

Hvordan vil du beskrive din egen innsats den gangen?

Hva var det du likte ved å danse ballett/ spille dette instrumentet/ denne idretten?

Hva var det du evt. mislikte ved å danse ballett/spille dette instrumentet/ denne idretten?

Hva opplevde du at du fikk ut av å danse ballett/spille dette instrumentet/ denne idretten?

Hva skulle til for at du skulle føle at du virkelig hadde lyktes på trening/konkurrans –
trening/forestilling?

Kan du beskrive en slik situasjon/minne?

På en skala fra 1 til 10 der 1 er aldri og 10 nesten hele tiden, hvor ofte hadde du opplevelsen av å virkelig lyktes?

Hva skulle til for at du skulle føle at du virkelig hadde mislyktes?

Kan du beskrive en slik situasjon/minne?

På en skala fra 1 til 10 der 1 er aldri og 10 nesten hele tiden, hvor ofte hadde du opplevelsen av å mislykkes?

Hvordan har aktiviteten (dansen/ musikken/ idretten) preget og vært med på å forme deg som person (som ungdom/ i dag)?

Hvordan påvirket aktiviteten (dansen/musikken/ idretten) livet ditt den gang?

Opplevde du at du hadde kontroll over aktiviteten eller at aktiviteten hadde kontroll over deg den gangen? begrund

Har årsaken til at du danser ballett /spiller instrument/ er idrettsutøver endret seg fra ungdomstiden til i dag? Hva har evt. endret seg? På hvilken måte?

Tema: motivasjonsklima i utdanningsmiljøet (Hva kjennetegner utøvernes beskrivelse av læringskulturen i tidligere utdanning?)

Kan du beskrive hvordan læringsmiljøet på Balletthøgskolen/Barrat Due/ NTG var?

Opplevde du at du fikk den tilpasningen og støtten du trengte for å kunne lykkes optimalt? (på hvilken måte?)

Oppfølgingsspørsmål:

Kan du beskrive relasjonen du hadde til lærerne dine?

Kan du beskrive relasjonen du hadde til medelevene dine?

Opplevde du at du ble sett *rett* av de rundt deg og at du kunne være deg selv? begrund

Vil du si at det var mest fokus på læringsprosessen eller resultatene under treningen? begrund

Opplevde du at læringskulturen var åpen og undersøkende eller mer rigid og lukket? Begrunn/Kan du gi noen eksempler?

Hva slags tilbakemeldinger fikk du fra lærerne? Hva fokuserte de på? (kan du gi noen eksempler?)

Kan du beskrive ulike arbeidsmåter og tilnærminger til trening og læring dere brukte under utdanningen?

Hvordan opplevde du at dine synspunkter og meninger ble tatt imot under utdanningen?

Kan du beskrive hvordan du ble møtt i situasjoner der du mestret og gjorde noe bra?

Kan du beskrive hvordan du ble møtt i situasjoner der du gjorde feil, ikke forstod eller mislyktes?

Vil du si at det forekom forskjellsbehandling av elevene? (på hvilken måte utartet dette seg?)

På en skala fra 1 til 10 hvor 1 er ikke i det hele tatt og 10 er hele tiden; hvor trygg følte du deg på Balletthøgskolen/Barrat Due /NTG?

På en skala fra 1 til 10 hvor 1 er ikke i det hele tatt og 10 er hele tiden; hvor verdsett og betydningsfull følte du deg på Balletthøgskolen/Barrat Due /NTG?

På en skala fra 1 til 10 hvor 1 er ikke i det hele tatt og 10 er hele tiden; i hvor stor grad følte du at du være med å bestemme på Balletthøgskolen/Barrat Due /NTG?

På en skala fra 1 til 10 hvor 1 er ikke i det hele tatt og 10 er hele tiden; i hvor stor grad opplevde du at det gjorde deg godt som menneske å være på Balletthøgskolen/Barrat Due/ NTG?

Tema: grad av utøversentrering og tilpasning til utøvers behov (*Hvordan erfarte utøverne samsvar mellom egen motivasjon og trekk i læringskulturen?*)

Tema: konsekvens for utøverne (utbytte) (*Hvordan påvirket samsvar/manglende samsvar utøvernes opplevelse av motivasjon, prestasjon og psykiske velvære?*)

Hvordan opplevde du at utdanningen og lærernes tilnærming var tilpasset til din personlighet, dine behov og dine styrker og svakheter?

Oppfølgingsspørsmål:

Hvordan opplevde du at utdanningen passet din læringsstil?

Hvordan opplevde du at utdanningen passet din personlighet?

Følte du at det var rom for dine behov og ønsker i planleggingen og gjennomføringen av utdanningen?

På en skala fra 1 til 10 hvor 1 er null match og 10 er full match; i hvor stor grad opplevde du at utdanningen på Balletthøgskolen/Barrat Due /NTG matchet dine behov og personlighet?

Hvis positiv match (6-10):

Hvilken betydning tror du det at du ble sett, fikk støtte og ble fulgt så tett opp av skolen fikk å si for din utvikling som ballettdanser/ musiker/idrettsutøver?

Hvordan tror du det påvirket din motivasjon?

Hvordan tror du det påvirket dine prestasjoner?

Hvordan tror du det påvirket din totale trivsel på skolen og i livet på den tiden?

Hvis negativ match (4-1):

Hvordan påvirket det å måtte tilpasse deg et system og kanskje gå litt på akkord med egne behov din utvikling som ballettdanser/musikere/idrettsutøver?

Hvordan påvirket det din motivasjon?

Hvordan påvirket det dine prestasjoner?

Hvordan påvirket det din totale trivsel på skolen og i livet på den tiden?

Fase 3: Tilbakeblikk (15 minutter)

- Har du lyst til å utdype noe av det vi har sagt? (Spørre om hvert tema)
I forhold til din motivasjon den gangen?
i forhold til din opplevelse av læringskulturen?

I forhold til hvordan du følte at læringskulturen passet deg godt eller ikke?
i forhold til hvordan du opplever utdanningens relevans for yrkeslivet nå i etterkant?

- Er det noe du tenker at jeg har glemt å spørre om som er relevant å få med?
 - Var det lett eller vanskelig å svare på spørsmålene?

Takke for intervjuet

Si kort litt om hva som skjer videre med dataene i prosessen

Velkommen til undersøkelsen 'Motivasjonsprosesser i talentutviklingsmiljøer i kunst og idrett'

Takk for at du deltar i vår undersøkelse!
Vi ber deg svare så ærlig du kan. Det er ingen 'rette' eller 'gale' svar. Vi er ute etter dine erfaringer, tanker og meninger.
Les introduksjonen til spørsmålene nøye før du svarer.

Under finner du viktig informasjon om undersøkelsen som du må sette deg inn i før du begynner:

Bakgrunn og formål

Formålet ved prosjektet er å undersøke og sammenligne unge utøveres opplevelse av læringsmiljøet/treningskulturen innenfor høyt presterende talentutdanninger i kunst og idrett, og hvordan dette påvirker utøvernes motivasjon, prestasjon og psykiske velvære/helse. Prosjektet er del av Heidi Haraldsens doktorgradsstudie ved seksjon for coaching og psykologi ved Norges Idrettshøgskole i samarbeid med Kunsthøgskolen i Oslo.

Hva innebærer deltakelse i studien?

Deltakelse i studien innebærer å svare på dette digitale spørreskjemaet som omhandler temaer som motivasjon, prestasjon, utfordringer og trivsel i forhold til din erfaring med læringsmiljøet/treningskulturen i din aktivitet.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt og anonymiseres. Det er kun stipendiaten som har tilgang til deltakernes navn og kontaktinfo, og koblingsnøkkel mellom deltaker og spørreskjema. Dataene vil lagres på Norges Idrettshøgskoles server, og det er kun stipendiaten som vil ha tilgang til disse dataene i ettertiden. Personopplysninger vil ikke kunne kobles til disse lagrede dataene i ettertid da de vil anonymiseres fullstendig. Prosjektet skal etter planen avsluttes 31.07.2019. Datamateriale arkiveres da de kan ha interesse inn i videre forskning på feltet.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke deg uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert.

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS, og vil ikke igangsettes før godkjenning foreligger.

Jeg har lest informasjon og samtykker til å delta i undersøkelsen

Ja

1. Bakgrunnsinformasjon om deg selv

Hvor gammel er du?

Hvilken klasse går du i?

Vg1

Vg2

Vg3

annet _____

Kjønn

mann

Kvinne

Hvilken aktivitet (kunstform/ idrett) deltar du i?

Ballett

Musikk

Idrett

Hvor lenge har du drevet med idretten/kunstformen?

Hvor mange timer i uka bruker du i gjennomsnitt på aktiviteten?

Driver du alternativt treningsopplegg for tiden grunnet skade eller sykdom?

Ja

Nei

2. Dine tanker rundt personlighet, evner, suksess og nederlag

Les hver av utsagnene nedenfor nøye og svar for hvert av dem i forhold til hvor enig eller uenig du er:

| | Helt uenig | Noe uenig | Litt uenig | Nøytral | Litt enig | Noe enig | Helt enig |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg mener det er bedre å være seg selv, enn å være populær | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg vet egentlig ikke hvordan jeg virkelig føler det inni meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er sterkt påvirket av andres meninger | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg gjør vanligvis det andre forteller meg at jeg skal gjøre | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler alltid at jeg må gjøre det andre forventer av meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Andre påvirker meg i stor grad | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler det som at jeg ikke kjenner meg selv veldig godt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg står alltid for det jeg mener og tror på | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er tro/ærlig mot meg selv i de fleste situasjoner | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg ikke i kontakt med det sanne/virkelige meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg lever i overensstemmelse med mine verdier og hva jeg tror på | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg opplever meg som fremmed for meg selv | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Relater de neste svarene dine til situasjoner der du utøver din aktivitet
(ballett, klassisk musikk, idrett)

| | Helt uenig | Noe uenig | Litt uenig | Nøytral | Litt enig | Noe enig | Helt enig |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Hvis jeg mislykkes i aktiviteten min, føler jeg meg mislykket som person | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg ikke setter høyeste standard for meg selv kommer jeg til å føle meg mindre verdt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Det er viktig for meg at jeg er virkelig god i det jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er vanligvis opprørt hvis jeg gjør feil under trening | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg setter høyere mål og standarder enn de fleste andre på min alder | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis noen gjør noe bedre enn meg, da føler jeg at jeg har mislyktes i aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg delvis mislykkes føles det som et totalt nederlag | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er veldig god til å fokusere innsatsen min på å oppnå et mål | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Selv om jeg gjør noe veldig nøye, føler jeg ofte at det likevel ikke er helt riktig | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg hater å ikke være den beste i det jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Relater de neste svarene dine til situasjoner der du utøver din aktivitet
(ballett, klassisk musikk, idrett)

| | Helt uenig | Noe uenig | Litt uenig | Nøytral | Litt enig | Noe enig | Helt enig |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg har/setter ekstremt høye mål og standarder i aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Trenere/lærer og medelever (andre) vil sannsynligvis tenke dårligere om meg hvis jeg gjør feil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg presterer dårligere enn de andre, er jeg mindre verdt som person | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Andre ser ut til å akseptere lavere standarder for seg selv enn det jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg ikke gjør det bra hele tiden så vil ikke de andre respektere meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Vanligvis har jeg tvil rundt enkle hverdagslige ting jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg forventer høyere standard i dagligdagse oppgaver jeg gjør enn de fleste andre | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg har en tendens til å bli hengende etter fordi jeg repeterer ting om og om igjen | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Det tar meg lang tid å gjøre noe helt 'riktig' | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jo færre feil jeg gjør jo flere vil like meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3. Dine tanker rundt trenings- og læringskulturen i din aktivitet (musikk, ballett, idrett)

Les hvert av utsagnene nøye og svar for hvor godt de stemmer med hvordan du opplever at den typiske/vanlige trenings/læringshverdagen i din aktivitet er og adferden til hovedlærere/hovedtrenere (de du har mest).

Helt uenig Litt uenig Nøytral Litt enig Helt enig

| | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg føler meg forstått av min lærer/trener | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Min lærer/trener ser ikke meg som person, han/hun ser bare ferdighetene mine | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Min lærer/trener oppmuntrer meg til å stille spørsmål | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Når mine ferdigheter og utøvelse blir vurdert føler jeg meg ofte undervurdert og/eller ydmyket | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg opplever at min lærer/trener gir meg muligheter og valg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Når jeg er på trening/øvelse føler jeg det er en avstand mellom læreren/treneren min og meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Min lærer/trener prøver å forstå hvordan jeg ser ting før han/hun foreslår nye måter å gjøre ting på | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg opplever at lærer/trener prøver å forandre meg uten at jeg selv har noen tanker (noe å si) om det | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Min lærer/trener lytter til hvordan jeg jeg ønsker å legge opp min trening/øving | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg opplever at lærer/trener bestemmer for mye | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Min lærer/trener uttrykker tillit til mine evner til å gjøre det bra i aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er bekymret for at min lærer/trener ikke gjør det beste for meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. Din tanker rundt din motivasjon

Jeg deltar i denne aktiviteten...

| | Helt usant | Noe usant | Litt usant | Nøytral | Litt sant | Noe sant | Helt sant |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Fordi jeg liker det | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På grunn av energien jeg føler når jeg er veldig involvert i aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| For den gleden det gir meg å kunne mer om aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg liker å lære hvordan jeg skal bruke nye ferdigheter og teknikker | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg liker å lære noe nytt om aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det er gøy | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg elsker de fantastiske situasjonene jeg opplever i utøvelsen av aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På grunn av den gleden jeg opplever når jeg føler meg helt oppslukt i aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På grunn av de positive følelsene jeg opplever mens jeg utøver aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det er behagelig | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg liker å lære nye ferdigheter og teknikker | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg får glede av det | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Jeg deltar i denne aktiviteten...

| | Helt usant | Noe usant | Litt usant | Nøytral | Litt sant | Noe sant | Helt sant |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Fordi jeg ville føle skam hvis jeg sluttet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Men jeg lurer på hva poenget er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg føler meg forpliktet til å fortsette | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi folk presser meg til å delta | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg vil få dårlig samvittighet hvis jeg slutter | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Men hvorfor jeg deltar/årsakene er ikke lengre klart/klare for meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg ville føle det som et nederlag dersom jeg sluttet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg føler press fra andre om å delta | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Men jeg stiller spørsmål ved hvorfor jeg utsetter meg for dette | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| For å tilfredsstillte andre som ønsker at jeg skal holde på med aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Men jeg spør meg selv om hvorfor jeg fortsetter | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg ikke holder på med aktiviteten min, vil ikke andre være fornøyd med meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Jeg deltar i denne aktiviteten...

| | Helt usant | Noe usant | Litt usant | Nøytral | Litt sant | Noe sant | Helt sant |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Fordi jeg liker følelsen av å lykkes når jeg jobber mot noe viktig | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det er en mulighet til å bare være den jeg er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi fordelene med å utøve aktiviteten er viktige for meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg liker å gjøre det beste ut av mine evner | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det lærer meg selvdisiplin | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg verdsetter fordelene ved aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det er en bra måte å lære ting som kan bli nyttig for meg i livet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det jeg gjør gjennom aktiviteten er et uttrykk for hvem jeg er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg får en følelse av mestring når jeg strever med å oppfylle mine mål/ambisjoner/drømmer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det er en del av hvem jeg er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg nyter følelsen av mestring når jeg prøver å nå langsiktige mål/ambisjonene mine | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det gir meg anledning til å leve på en måte som er tro mot mine egne verdier | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Dine opplevelser av det å være utøver i din trenings- og læringskultur

Ta stilling til hvor godt utsagnene nedenfor beskriver din opplevelse av din trenings-/læringshverdag i din aktivitet (ballett, musikk, idrett).

| | Helt uenig | Noe uenig | Litt uenig | Nøytral | Litt enig | Noe enig | Helt enig |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg opplever en varm og god følelse sammen med de menneskene jeg tilbringer tid med på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg har en følelse av valg og frihet i de tingene jeg foretar meg i forbindelse med aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg sikker på at jeg kan gjøre ting bra på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I forbindelse med aktiviteten min føler jeg at jeg gjør det som virkelig interesserer meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler at de menneskene jeg bryr meg om på aktiviteten min også bryr seg om meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Når jeg er på aktiviteten min føler jeg at valgene mine uttrykker den jeg virkelig er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg føler meg kompetent til å nå mine mål/ambisjoner på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg nært knyttet til andre personer som er viktige for meg på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg i stand til å gjøre det jeg gjør på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I forbindelse med aktiviteten min føler jeg at mine avgjørelser gjenspeiler hva jeg virkelig vil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg knyttet til de menneskene som bryr seg om meg og som jeg bryr meg om på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler at jeg med godt resultat kan fullføre vanskelige oppgaver på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Ta stilling til hvor godt utsagnene nedenfor beskriver din opplevelse av din trenings-/læringshverdag i din aktivitet (ballett, musikk, idrett).

| | Helt uenig | Noe uenig | Litt uenig | Nøytral | Litt enig | Noe enig | Helt enig |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| De fleste ting jeg gjør i forbindelse med aktiviteten min gjør jeg fordi jeg føler at jeg må | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På aktiviteten min føler jeg at folk som er viktige for meg er kalde og fjerne i forhold til meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Mine daglige aktiviteter på aktiviteten min føles som en sammenhengende rekke av forpliktelser | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er i sterk tvil om hvorvidt jeg kan gjøre ting bra på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På aktiviteten min føler jeg meg mislykket på grunn av de feilene jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På aktiviteten min føler jeg meg ekskludert fra den gruppen jeg ønsker å være en del av | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg skuffet over mange av mine prestasjoner | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg har inntrykk av at folk jeg tilbringer tid med på aktiviteten min misliker meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Mange av de tingene jeg gjør på aktiviteten min føler jeg med presset til å gjøre | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg usikker på mine evner til å utøve aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler de relasjonene jeg har i forbindelse med aktiviteten min kun er overfladiske | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I forbindelse med aktiviteten min føler jeg med tvunget til å gjøre mange ting jeg ikke selv ville valgt å gjøre | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Ditt prestasjonsnivå

Ranger dine prestasjoner siste måned i forhold til din aldersgruppe innenfor din aktivitet.

Ranger etter en skala (0-100) som gjenspeiler det prestasjonsnivået du er på der 0 er lavest mulig nivå og 100 er høyest mulig nivå.

Egen vurdering nasjonalt nivå

Egen vurdering internasjonalt nivå

7. Din mentale helsetilstand

Nedenfor er en rekke uttrykk som beskriver ulike følelser. Angi i hvilken grad du har opplevd denne følelsen siste 4 uker

| | Svært lite | Litt | Passe | Ganske mye | Svært mye |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Fortvilet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Begeistret | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Oppskaket | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Irritert | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Oppvakt/klar | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Inspirert | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Nervøs | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Målbevisst | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Livlig | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Redd | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Entusiastisk | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Skremt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Vurder hvordan disse utsagnene passer for deg siste 4 uker

| | Aldri | Sporadisk | Nå og da | Regelmessig | Ofte | Svært ofte | Daglig |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg føler meg levende og vital | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg har mye energi og pågangsmot | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg ser fram til en ny dag | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg nesten alltid klar og tilstede | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler at jeg har mye energi | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler at jeg har masse overskudd | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Kryss av for det alternativet som beskriver hvor ofte, hvis i det hele tatt, du har erfart følgende siste 4 uker

| | Aldri | Sporadisk | Nå og da | Regelmessig | Ofte | Svært ofte | Daglig |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Aktiviteten min gjør meg følelsesmessig utslitt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg oppbrukt etter at arbeidsdagen/skoledagen er over | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg trett når jeg står opp om morgenen og må se en ny arbeidsdag/skoledag foran meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Å være på skolen/aktiviteten en full dag er virkelig en belastning for meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg klarer effektivt å løse de problemer som måtte oppstå i treningen/aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg utbrent av aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Når du konkurrerer eller gjør forestilling/konsert, marker i hvor stor grad prosentmessig (fra 0-100%) du kjenner at:

Mine tanker er rolige (0%) - svært bekymret (100%)

Kroppen min kjennes... avslappet (0%) - svært anspent (100%)

Jeg føler meg.... selvsikker (0%) - redd (100%)

Tusen takk for at du deltok!

Du kan sende inn spørreskjemaet ved å trykke på avslutt i nederste høyre hjørne

Takk for at du deltar i vår undersøkelse!

Vi ber deg svare så ærlig du kan. Det er ingen rette eller gale svar, vi er ute etter dine erfaringer, tanker og meninger.

Les introduksjoner og spørsmålene nøye før du svarer.

Under finner du viktig informasjon om undersøkelsen som du må sette deg inn i før du begynner og du må samtykke til deltakelse.

Bakgrunn og formål

Formålet ved prosjektet er å undersøke og sammenligne hvordan unge eliteutøvere erfarer og opplever læringsmiljøet og treningskulturen innenfor høyt presterende talentutdanninger i kunst og idrett. Læringskontekstens rolle og betydning for utøvernes motivasjon, prestasjon og psykiske velvære er i fokus. Prosjektet er del av Heidi Haraldsens doktorgradsstudie ved seksjon for coaching og psykologi ved Norges Idrettshøgskole i samarbeid med Kunsthøgskolen i Oslo.

Prosjektet sikter seg inn mot talentfulle unge utøvere som er elever ved ledende skoler/landslag i sine fagfelt, parallelt med videregående skoleløp. Utvalget er formålstjenlig valgt ut og sikter seg inn på en spesiell type utøvere, innenfor ulike læringskulturer og domener. Kunsthøgskolens studieprogram for klassisk ballett, Barrat Dues program Unge Talenter og landslagutøvere på junior-/seniorlandslag i individuelle idretter i Norge er valgt ut som settinger.

Hva innebærer deltakelse i studien?

Deltakelse i studien innebærer å svare på tre digitale spørreskjema over en periode på 9 måneder. Spørsmålene vil omhandle din erfaring og refleksjon rundt utøverutdanningen din og læringsmiljøet der, med fokus på temaer som motivasjon, prestasjon, trivsel og eventuelle utfordringer.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt og anonymiseres. Det benyttes koblingsnøkkel mellom deltaker og spørreskjema, som innebærer at ingen personopplysninger er knyttet direkte opp mot dataene. Koblingsnøkkel lagres og oppbevares separat fra dataene, og det er kun stipendiaten som har tilgang på denne. Dataene vil lagres på Norges Idrettshøgskoles server og følge institusjonens prosedyrer for datasikring og datalagring, og det er kun stipendiaten som vil ha tilgang til disse dataene i ettertiden. Prosjektet skal etter planen avsluttes 31.07.2019. Datamateriale arkiveres da de kan ha interesse inn i videre forskning på feltet, men personopplysningene slettes.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert.

Dersom du har spørsmål til studien, ta kontakt med Heidi Haraldsen (92096066 eller heidi.haraldsen@nih.no) eller veileder Frank Abrahamsen (94188982 eller f.e.abrahamsen@nih.no).

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Jeg har lest og samtykker til å delta i undersøkelsen

Ja

Nei

Dato for utfyllelse

1. Bagrunnsinformasjon om deg selv

Hvilken klasse går du i?

- VG1
 VG2
 VG3
 Annet

Kjønn

- Mann
 Kvinne

Hvor lenge har du drevet med idretten/kunstformen?

Hvor mange timer i uka bruker du i gjennomsnitt på aktiviteten?

Driver du alternativt treningsopplegg for tiden grunnet skade eller sykdom?

- Ja
 Nei

2. Dine tanker rundt personlighet, evner, suksess og nederlag

Les hvert av utsagnene nedenfor nøye og svar for hvert av dem i forhold til hvor enig eller uenig du er

| | 1 helt uenig | 2 uenig | 3 litt uenig | 4 nøytral | 5 litt enig | 6 enig | 7 helt enig |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg mener det er bedre å være seg selv, enn å være populær | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg vet egentlig ikke hvordan jeg føler det inni meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er sterkt påvirket av andres meninger | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg gjør vanligvis det andre forteller meg at jeg skal gjøre | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler alltid at jeg må gjøre det andre forventer av meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Andre påvirker meg i stor grad | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler det som at jeg ikke kjenner meg selv veldig godt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg står alltid for det jeg mener og tror på | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er tro/ærlig mot meg selv i de fleste situasjoner | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg ikke i kontakt med det sanne/virkelige meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg lever i overensstemmelse med mine verdier og hva jeg tror på | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg opplever meg som fremmed for meg selv | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Relater svarene dine til situasjoner der du utøver din aktivitet

1 helt 2 3 litt 4 5 litt 6 7

| | uenig | uenig | uenig | nøytral | enig | enig | helt enig |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg har/setter ekstremt høye mål og standarder i aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Trenere/lærer og medelever (andre) vil sannsynligvis tenke dårligere om meg hvis jeg gjør feil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg presterer dårligere enn de andre, er jeg mindre verdt som person | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Andre ser ut til å akseptere lavere standarder for seg selv enn det jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg ikke gjør det bra hele tiden så vil ikke de andre respektere meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Vanligvis har jeg tvil rundt enkle hverdagslige ting jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg forventer høyere standard i dagligdagse ting jeg gjør enn de fleste andre | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg har en tendens til å bli hengende etter fordi jeg repeterer ting om og om igjen | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Det tar meg lang tid å gjøre noe helt 'riktig' | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jo færre feil jeg gjør jo flere vil like meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Relater de neste svarene dine til situasjoner der du utøver din aktivitet

| | 1 helt uenig | 2 uenig | 3 litt uenig | 4 nøytral | 5 litt enig | 6 enig | 7 helt enig |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Hvis jeg mislykkes i aktiviteten min, føler jeg meg mislykket som person | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg ikke setter høyeste standard for meg selv kommer jeg ikke til å bli best i aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Det er viktig for meg at jeg er virkelig god i det jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er vanligvis opprørt hvis jeg gjør feil under trening | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg setter høyere mål og standarder enn de fleste andre på min alder | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis noen gjør noe bedre enn meg, da føler jeg at jeg har mislyktes i aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg delvis mislykkes føles det som et totalt nederlag | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er veldig god til å fokusere innsatsen min på å oppnå et mål | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Selv om jeg gjør noe veldig nøye, føler jeg ofte at det likevel ikke er helt riktig | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg hater å ikke være best i det jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Relater spørsmålene nedenfor til livet ditt som helhet, ikke bare relatert til aktiviteten din

| | 1 helt uenig | 2 uenig | 3 litt uenig | 4 nøytral | 5 litt enig | 6 enig | 7 helt enig |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg har en følelse av valg og frihet i det jeg gjør i livet mitt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Det meste jeg gjør i livet mitt gjør jeg fordi jeg føler at jeg må | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler at mine avgjørelser i livet gjenspeiler hva jeg virkelig vil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg tvunget til å gjøre mange ting i livet som jeg ikke selv ville valgt å gjøre | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler at mine valg og avgjørelser i livet gjenspeiler den jeg virkelig er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg presset til å gjøre mange ting generelt i livet mitt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Jeg føler jeg har gjort det som virkelig interesserer meg i livet mitt

Mine daglige aktiviteter i livet føles ut som en sammenhengende rekke av forpliktelser

3. Dine tanker rundt din motivasjon

Jeg deltar i denne aktiviteten...

| | 1 helt usant | 2 usant | 3 litt usant | 4 nøytral | 5 litt sant | 6 sant | 7 helt sant |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| For den gleden det gir meg å kunne mer om aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Men hvorfor jeg deltar/årsakene er ikke lengre klart/klare for meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det gir meg anledning til å leve på en måte som er tro mot mine egne verdier | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg like å lære hvordan jeg skal bruke nye ferdigheter og teknikker | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg liker følelsen av å lykkes når jeg jobber mot noe viktig | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi fordelene med å utøve aktiviteten er viktige for meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg vil få dårlig samvittighet hvis jeg slutter | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Men jeg stiller spørsmål ved hvorfor jeg utsetter med for dette | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg får en følelse av prestasjon når jeg prøver å oppfylle mine mål/ambisjoner/drømmer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg nyter følelsen av mestring når jeg prøver å nå langsiktige mål/ambisjonene mine | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg ikke holder på med aktiviteten min, vil ikke andre være fornøyd med meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Jeg deltar i denne aktiviteten...

| | 1 helt usant | 2 usant | 3 litt usant | 4 nøytral | 5 litt sant | 6 sant | 7 helt sant |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Fordi det lærer meg selvdisciplin | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Men jeg spør meg selv om hvorfor jeg fortsetter | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det er en del av hvem jeg er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På grunn av de positive følelsene jeg opplever mens jeg utøver aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det er en bra måte å lære ting som kan bli nyttig for meg i livet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg liker å gjøre det beste ut av mine evner | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det jeg gjør gjennom aktiviteten er et uttrykk for hvem jeg er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg føler meg forpliktet til å fortsette | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg elsker spenningen jeg føler når jeg er veldig involvert i aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg liker å lære noe nytt om aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Jeg deltar i aktiviteten...

| | 1 helt usant | 2 usant | 3 litt usant | 4 nøytral | 5 litt sant | 6 sant | 7 helt sant |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Fordi jeg liker å lære nye ferdigheter og teknikker | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Fordi jeg elsker de ekstreme høyder jeg føler i utøvelsen av aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg ville føle skam hvis jeg sluttet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi det er en mulighet til å bare være den jeg er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| For å tilfredsstille andre som ønsker at jeg skal holde på med aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg verdsetter fordelene ved aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi jeg ville føle det som et nederlag dersom jeg sluttet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fordi folk oppfordrer og presser meg til å delta | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På grunn av den gleden jeg opplever når jeg føler meg helt oppslukt i aktiviteten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Men jeg lurer på hva poenget er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. Dine opplevelser av det å delta og være utøver i din trenings- og læringskultur

Ta stilling til hvor godt utsagnene nedenfor beskriver din opplevelse av din treningshverdag siste 3 måneder

| | 1 helt uenig | 2 uenig | 3 litt uenig | 4 nøytral | 5 litt enig | 6 enig | 7 Helt enig |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg føler de relasjonene jeg har i forbindelse med aktiviteten min kun er overfladiske | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg i stand til å gjøre det jeg gjør på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I forbindelse med aktiviteten min føler jeg at mine avgjørelser gjenspeiler hva jeg virkelig vil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg opplever en varm og god følelse sammen med de menneskene jeg tilbringer tid med på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På aktiviteten min føler jeg meg mislykket på grunn av de feilene jeg gjør | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Mine daglige aktiviteter på aktiviteten min føles som en sammenhengende rekke av plikter | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I forbindelse med aktiviteten min føler jeg med tvunget til å gjøre mange ting jeg ikke selv ville valgt å gjøre | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg knyttet til de menneskene som bryr seg om meg og som jeg bryr meg om på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler at jeg med godt resultat kan fullføre vanskelige oppgaver på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I forbindelse med aktiviteten min føler jeg at jeg gjør det som virkelig interesserer meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg skuffet over mange av mine prestasjoner i forbindelse med utøvelse av aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På aktiviteten min føler jeg at folk som er viktige for meg er kalde og fjerne i forhold til meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Ta stilling til hvor godt utsagnene nedenfor beskriver din opplevelse av din treningshverdag siste 3 måneder

| | 1 helt uenig | 2 uenig | 3 litt uenig | 4 nøytral | 5 litt enig | 6 enig | 7 helt enig |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg har en følelse av valg og frihet i de tingene jeg foretar meg i forbindelse med aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg sikker på at jeg kan gjøre ting bra på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg føler at de menneskene jeg bryr meg om på aktiviteten min også bryr seg om meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| De fleste ting jeg gjør i forbindelse med aktiviteten min gjør jeg fordi jeg føler at jeg må | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Når jeg er på aktiviteten min føler jeg at valgene mine uttrykker den jeg virkelig er | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er i sterk tvil om hvorvidt jeg kan gjøre ting bra på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Mange av de tingene jeg gjør på aktiviteten min føler jeg med presset til å gjøre | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| På aktiviteten min føler jeg meg ekskludert fra den gruppen jeg ønsker å være en del av | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg har inntrykk av at folk jeg tilbringer tid med på aktiviteten min misliker meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg kompetent til å nå mine mål/ambisjoner på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg usikker på mine evner til å utøve aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg nært knyttet til andre personer som er viktige for meg på aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Dine prestasjoner og resultater

Ranger dine egne prestasjoner relatert til andre eliteutøvere på samme alder i din aktivitet i Norge

- 1 blant de dårligste eliteutøverne
- 2 litt svak blant eliteutøverne
- 3 sånn midt på treet blant eliteutøverne
- 4 ganske god blant eliteutøverne
- 5 blant de 3 beste av eliteutøverne

Vurder kurven på egen utvikling i prestasjonsnivå/resultater

| | 1= kraftig tilbakegang | 2= svak tilbakegang | 3= samme nivå | 4= svak bedring | 5= kraftig bedring |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Min individuelle utviklingskurve siste 3 måneder? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Min individuelle utviklingskurve siste 6 måneder? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Min individuelle utviklingskurve siste 12 måneder? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Din mentale og følelsesmessige helsetilstand

Prøv å beskrive hvordan du har følt deg siste måned og merk av i hvor stor grad du kjenner deg igjen i følgende:

| | 1 aldri | 2 sporadisk | 3 nå og da | 4 ofte | 5 daglig |
|------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Fortvilet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Begeistret | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Oppskaket | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Bekymret | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Irritert | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Oppvakt/klar | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Inspirert | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Nervøs | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Målbevisst | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Livlig | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Redd | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Entusiastisk | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Vurder hvordan disse utsagnene passer for deg siste 3 måneder

| | 1 aldri | 2 sporadisk | 3 någ og da | 4 ofte | 5 daglig |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Jeg føler meg levende og vital | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg har mye energi og pågangsmot | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg ser fram til hver eneste nye dag | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg nesten alltid klar og våken | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler at jeg har mye energi | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler at jeg har mye overskudd | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Kryss av for det alternativet som beskriver hvor ofte, hvis i det hele tatt, du har erfart følgende siste 3 måneder

| | 1 aldri | 2 sporadisk | 3 nå og da | 4 ofte | 5 daglig |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Aktiviteten min gjør meg følelsesmessig utslitt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg oppbrukt etter at arbeidsdagen/skoledagen er over | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg trett når jeg står opp om morgenen og må se en ny arbeidsdag/skoledag foran meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Å være på skolen/aktiviteten en full dag er virkelig en belastning for meg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg klarer effektivt å løse de problemer som måtte oppstå i treningen/aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler meg utbrent av aktiviteten min | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Vurder hvordan du opplever livet ditt generelt

| | 1 helt uenig | 2 uenig | 3 litt uenig | 4 nøytral | 5 litt enig | 6 enig | 7 helt enig |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| På de fleste områder er livet mitt nær det ideelle | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Mine livsforhold er utmerkede | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er fornøyd med livet mitt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Så langt har jeg fått gjort det jeg vil ut av livet mitt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hvis jeg kunne leve om igjen, ville jeg nesten ikke endre noen ting | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Når jeg konkurrerer eller gjør forestilling/konsert så er mine tanker rolige (0) - svært bekymret (100)

Når jeg konkurrerer eller gjør forestilling/konsert så kjennes kroppen min avslappet (0)-svært anspent (100)

Når jeg konkurrerer eller gjør forestilling/konsert så føler jeg meg svært selvsikker (0) - redd (100)

Utdyp hvordan du føler deg under konkurranse eller forestilling/konsert

| | 1 | 2 | 3 | 4 | 5 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | aldri | sporadisk | nå og da | ofte | hver gang |
| Jeg er nervøs | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg tviler på meg selv | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Magen min slår seg vrang før eller under konkurranser/forestilling/konsert | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Før og under konkurranser/forestilling/konsert er jeg bekymret for at jeg ikke skal gjøre det like godt som jeg vet jeg kan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg har sommerfugler i magen | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tanker om å gjøre det dårlig forstyrer konsentrasjonen min før og under konkurranser/forestillinger/konserter | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er bekymret for å mislykkes fullstendig under press | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hjertet mitt hamrer fort | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg føler magen er anspent | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er bekymret for å prestere dårlig | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg merker at jeg blir skjelven før eller under en konkurranse/forestilling/konsert | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er bekymret for hvorvidt jeg klarer å nå målet mitt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Kroppen føles forknytt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jeg er bekymret for at andre vil bli skuffet over prestasjonene mine | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hjertet mitt banker hardt før konkurranse/forestilling/konsert | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Det var siste spørsmål

Tusen takk for at du tok deg tid og deltok!

Husk trykke på *avslutt* for å sende inn besvarelsen

Intervjuguide studie 4. Et studie av unge eliteutøveres erfaring med sin utdanning i talentprogrammer innenfor ballett, musikk og idrett.

Form:

Forklarende hensikt. Gå mer i dybde på tendenser framkommet i kvantitative data. Deduktiv tilnærming, teoribasert.

Strukturert rundt åpne *temaspørsmål* med tilhørende oppfølgingsspørsmål. Temaspørsmål går ut på å presentere et tema og be testpersonen fortelle om dette. Når deltakeren har fortalt så mye som mulig på egenhånd, vil intervjuer supplere med en del oppfølgingsspørsmål – både planlagte og spontane.

Forskningsspørsmål knyttet til studie 4:

Overordnede spørsmål:

Hvordan erfarer utøverne det å være innenfor kontekster som skaper frustrasjon av deres autonomi og kompetansefølelse, og hvordan påvirker dette utøvernes motivasjon, prestasjon og psykisk velvære?

Hvilken rolle spiller utøvernes individuelle karakteristikk (kvalitetsmotivasjon/ mindset) i deres opplevelse av å være utøvere innenfor ikke-optimale kontekster og hvordan påvirker det utøvernes motivasjon, prestasjoner og følelse av psykisk velvære?

Underspørsmål:

Hva tenker utøverne rundt egen personlighet, evner, suksess og nederlag?

Tema: utøvernes motivasjonsprofiler (kvalitetsmotivasjon/mindset).

Hvilken rolle spiller frustrasjon av kontekstuell autonomi i utøvernes motivasjonsprosesser?

Tema: Kontrollerende betingelsers betydning for utøvernes opplevelse av å delta i talentprogrammene og hvordan dette påvirker deres autonomifølelse, og videre deres motivasjon, prestasjoner og følelse av psykisk velvære.

Hvilken rolle spiller frustrasjon av kompetansebehovet i utøvernes motivasjonsprosesser?

Tema: Betydningen av mestring og oppfattet kompetanse for utøvernes opplevelse av å delta i talentprogrammene og hvordan dette påvirker deres motivasjon, og videre deres prestasjoner og følelse av psykisk velvære.

Til kunstutøverne kun:

Hvilke erfaringer har utøverne fra å være innenfor en perfeksjonismeorientert kontekst og hvordan har det påvirket utøvernes motivasjon, prestasjoner og følelse av psykisk velvære?

Tema: Betydningen av perfeksjonistiske omgivelser relatert til motivasjon, prestasjon og psykisk velvære.

Hvilken rolle spiller den kunstneriske dimensjonen som er sentral i kunstutøvelse i utøvernes motivasjonsprosesser?

Tema: Betydningen av de særegne kunstneriske prosessene som står sentralt i kunsten for utøvernes motivasjon, prestasjon og psykisk velvære.

Rammesetting

1. Løs prat

- Uformell prat
- Har testpersonen deltatt i slike undersøkelser tidligere? Har du lest informasjonsskrivet så du vet litt om prosjektet? Hvis ikke:
 - Presentere intervjuer + forskningsgruppe
 - Presentere undersøkelsen (lese opp fra infoskriv første avsnitt + fortelle at det er planlagt 8 intervjuer fra idrett, ballett og musikk).
 - Viktig at du skruer av mobiltelefonen før vi stater.

2. Informasjon

Takk for at du vil delta og bidra i dette forskningsprosjektet! Det skal bli interessant å høre om dine erfaringer og refleksjoner. Før vi begynner tenkte jeg gi deg litt generell informasjon.

- Det er viktig at du svarer så åpent og ærlig som mulig på spørsmålene. Det finnes ikke riktig eller gale svar, jeg er interessert i å høre om dine erfaringer, opplevelser og tanker.
- Intervjuet er strukturert tematisk i 4 temadeler;
 - dine tanker rundt egen personlighet, evner og motivasjon
 - hvordan du opplever læringsmiljøet i utdanningen din og den betydningen det har for din utvikling
 - hvordan du opplever din utviklingskurve og prestasjonsutvikling
 - hvordan alt dette påvirker deg psykisk og i forhold til din livskvalitet
- Jeg starter med å stille noen åpne spørsmål som jeg ønsker at du skal reflektere fritt rundt, før jeg følger opp med noen mer konkrete og direkte spørsmål.
- Er det ord og uttrykk i spørsmålet du ikke forstår, så må du si fra underveis. Noen begreper vil jeg forklare i forkant av spørsmålet.

3. Praktisk gjennomføring

- For å forsikre meg om at jeg får med meg alt du sier, vil jeg ta opp intervjuet på en lydfil og transkribere det til tekst i etterkant. Er det ok for deg?
- Lydfilen vil ikke lagres med ditt navn, og ingen utenforstående har tilgang til materialet. Alle sitat som evt. vil benyttes fra ditt intervju vil anonymiseres (danser 1, 2, 3 eller pseudonym).
- Før studien publiseres vil du få mulighet til å se over bruken av sitater og i hvilken sammenheng de er brukt, og evt. korrigere om det er noe som vi har misforstått. Du kan ta kontakt med meg dersom du kommer på noen tilføyelser eller korrigeringer til det du sa i intervjuet.
- Som du vet er det frivillig å være med. Det innebærer at du når som helst kan avbryte intervjuet eller velge å ikke svare på noen spørsmål.
- Har du noen spørsmål før vi starter?

4. Demografiske spørsmål: (fyll ut på forhånd)

Kvinne Mann Alder

Hvor lenge har du holdt på med aktiviteten (startet ved hvilken alder)?

Hvor mange timer bruker du på aktiviteten hver uke?

Har du slitt mye med skader?

Del 1: personlighet, evner og motivasjon

- 1. Kan du beskrive din personlighet, hvem er du som utøver?**
 - a) Hvordan tror du andre beskriver deg (de andre utøverne eller lærer/trener)?
 - b) På hvilke måter er aktiviteten din knyttet til din identitet? På hvilke måter er aktiviteten din med på å forme deg som person?
 - c) Hvordan opplever du ditt talent eller potensial? Hvilken betydning har talent hatt for din utvikling tror du? (medfødt/stabilt eller utviklet over tid)
 - d) Hvilke egenskaper har du som har bidratt til at du har kommet så langt som du har? Hva er dine styrker og svakheter som utøver?
 - e) Hvilken rolle har du i sosiale sammenhenger? Hvilken rolle tar du i utøvergruppen og i relasjon med lærerne dine? I hvor stor grad er du en som blir lyttet til, som står for dine meninger, vet hva du vil og tar plass i rommet? (evt. skala fra 1-10)
 - f) Har du et klart bilde av hva ditt 'sanne jeg' eller 'innerste deg' er? Forklar. I hvor stor grad opplever du at du kan være den personen i aktiviteten din? begrunn (evt. skala 1-10)
 - g) Hvis du kunne endre noe i din egen personlighet, hva skulle det evt. være og hvorfor?

- 2. Hvorfor danser du/spiller du/ driver du med idretten din?**
 - a) Hva motiverer deg i treningshverdagen og i aktiviteten din?
 - b) Hva ønsker du å oppnå, hva er dine mål og ambisjoner?
 - c) Vil du si at det er mest dine egne valg og ønsker som driver deg, eller er det andres? På hvilken måte?
 - d) Har årsakene til at du utøver aktiviteten din endret seg fra du var barn til nå? På hvilke måter?
 - e) Hva liker du med aktiviteten din? Hvilke positive sider har det?
 - f) Hva liker du ikke så godt med aktiviteten din? Hvilke negative sider har det?
 - g) Hva får du ut av det, hva tilfører det livet ditt?
 - h) Hvordan vil du beskrive din egen innsats?
 - i) Hva er ditt fokus når du er på trening eller konkurranse/forestilling?
 - j) Hva gir deg en god følelse etterpå? Hva gir dårlige følelser? Hva er dine utfordringer?
 - k) I hvilke situasjoner opplever du at du er inne i en god 'flytzone', hvor alt føles bra og lett, og du kjenner at aktiviteten gir deg masse positivt?

- 3. Hva skal til for at du skal føle at du mestrer og lykkes? Hvilke situasjoner? Hva er viktig for deg? (gi eksempler)**
 - a) Hvilke tanker og følelser får du i situasjoner der du lykkes? Hvordan opplever du at det påvirker deg som person og ditt syn på deg selv?
 - b) Hva skal til for at du skal føle at du feiler eller mislykkes?
 - c) Hvordan reagerer du i slike situasjoner? Hva tenker du, hva føler du? Hvordan påvirker det deg i ettertid?
 - d) Opplever du at du har den kompetansen du trenger for å lykkes? Kjenner du på tvil og usikkerhet i noen situasjoner, evt. hvilke?
 - e) Sitter du med en følelse av at du ofte mestrer eller ofte feiler? Hvorfor det? Blir du ofte skuffet over deg selv, eller opplever du å skuffe andre? Vil du si at du ofte er fornøyd med deg selv? Begrunn?
 - f) Opplever du deg selv som en perfektjonist? Hvorfor, hvorfor ikke?
 - g) Hvis ja: hvordan påvirker det deg i treningshverdagen din? Er det en positiv eller negativ egenskap opplever du?

Del 2: Motivasjonsklima og motivasjonsprosess.

4. Kan du beskrive hvordan treningskulturen og læringsmiljøet er på KHiO/Barrat Due/innenfor idretten din?

- a) Hvordan vil du karakterisere trenerstilen/lærerstilen i din aktivitet? Hvilken rolle har treneren/læreren?
- b) Hva fokuserer lærere/trenere mest på når dere trener/øver? Hva er fokus før, under og etter konkurranse/forestilling/konsert situasjoner?
- c) I hvilke situasjoner er læreren/treneren fornøyd med deg?
- d) I hvor stor grad uttrykker lærere/trenere at de er fornøyd med deg og gir deg ros (1-10)?
- e) Kan du beskrive ulike treningsmetoder/opplegg og tilnærminger dere bruker i din aktivitet? (evt. er det mye fokus på utforskning, eksperimentering, på selvstendig trening/øving, er det lærerstyrt eller utøverstyrt, overvåket eller basert på tillitt?)
- f) Opplever du at det er mest fokus på å lære og utvikle seg eller på å prestere i din aktivitet?
- g) Vil du si at det forekommer forskjellsbehandling av utøverne i din aktivitet? På hvilken måte evt.?
- h) Hvem bestemmer mest, har mest innflytelse på treningshverdagen din?
- i) Opplever du at du er i førersetet over egen utvikling og at det er noe du selv kontrollerer, eller føler du at ytre faktorer og andre personer legger mye føringer på din trening og utvikling?
- j) Føler du deg presset eller kontrollert/overvåket i noen situasjoner? Begrunn.
- k) Hender det at du opplever negative følelser som dårlig samvittighet, skyld eller skam i forbindelse med aktiviteten din? I hvilke situasjoner forekommer det?
- l) Vil du si at treningskulturen i din aktivitet er mest åpen og individfokuset eller mer rigid og systemfokuset? Begrunn.
- m) Hvilken rolle spiller refleksjon og dialog i treningshverdagen din? Er det mye rom for å endre seg, komme med innspill, stille spørsmål, analysere underveis vil du si? Begrunn?
- n) Hvordan reagerer lærere/trenere på utøvere som feiler, mislykkes eller er inne i utfordrende perioder i sin utvikling (f.eks. skader)?
- o) Kan du beskrive hvordan du opplever din status og verdi i gruppen?
- p) Hva slags relasjon har du til dine trenere/lærere? Er det enkelt å ta opp ting du har på hjertet med treneren? Hva med å gi kritikk til trener/lærer? Skulle du ønske den var annerledes, i så fall på hvilken måte?
- q) Hva slags relasjon har du til dine medelever/de andre utøverne? Opplever du at dere er innbyrdes konkurrenter i forhold til trener/læreres oppmerksomhet, muligheter, status og posisjon? Skulle du ønske det sosiale miljøet var annerledes, i så fall på hvilken måte?
- r) Opplever du at du får den oppfølgingen og støtten du trenger for å utvikle deg optimalt? På hvilken måte/ hvorfor ikke?
- s) Hva skal til for at utøvere i din aktivitet får status, makt og innflytelse?
- t) Hvordan ser du for deg den 'perfekte' det perfekte treningsopplegget/skolen (talentutviklingsprogrammet) og den 'perfekte' læreren eller treneren? På hvilken måte er din treningshverdag lik og ulik det 'perfekte' idealet?

For de som beskriver seg selv som perfeksjonistiske:

- u) På hvilke måter har treningskulturen/læringskulturen i din aktivitet påvirket din perfeksjonisme på godt og vondt? Prøv å begrunne eller gi noen eksempler.

For kunstnere:

- v) Hvilken rolle og betydning vil du si den kunstneriske dimensjonen har i ditt læringsmiljø?
Hvordan er balansen mellom teknikk/ ferdighet og kunstnerisk formidling i skolehverdagen?

3: Utviklingskurve og prestasjonsutvikling

- 5. Kan du beskrive din utviklingskurve som utøver, den reisen du har vært igjennom for å komme dit du er i dag?**
- a) Opplever du at det har vært en enkel og positiv reise, eller en turbulent og vanskelig reise? Begrunn
 - b) Hvordan har suksess og nederlag påvirket din utviklingskurve og prestasjonsutvikling tenker du?
 - c) Hvilke faktorer i din utøverhverdag er med på å fremme eller hemme dine prestasjoner? Hvilken rolle har du og din personlighet i dette? Hvilken rolle har treningskultur/læringskultur i din aktivitet i dette?
 - d) Hva opplever du er de viktigste nøklene til at du skal utvikle deg og lykkes? I hvor stor grad opplever du at du selv kan kontrollere og styre disse nøklene?

For kunstnerne:

- e) Hvilken rolle spiller den kunstneriske dimensjonen i dine prestasjoner? Fokuserer du mest på teknikk og ferdighet eller kunstnerisk formidling når du vurderer din prestasjon?
- f) Er det viktigere for deg å utøve teknisk feilfritt eller å føle at du har vist stor tilstedeværelse og karakter i din utøvelse?
- g) Opplever du at du klarer å legge din personlighet og personlige 'signatur' i din utøvelse? Hvor unike føler du at dine prestasjoner er?
- h) Hvilke faktorer i din utøverhverdag tenker du er med på å fremme eller hemme dine muligheter til å lykkes med å uttrykke ditt kunstneriske potensial eller personlige 'signatur' i dine prestasjoner?

Del 4 Psykisk velvære og livskvalitet

- 6. Hvilken betydning opplever du at aktiviteten din har for din psykiske velvære og livskvalitet?**
- a) Hvilke følelser og emosjoner vekker aktiviteten i deg og hvordan er disse relatert til hva som skjer på trening/øving eller konkurranse/forestilling/konsert? Vil du si at det gir deg en overvekt av positive eller negative følelser?
 - b) Kjenner du på en følelse av glede og overskudd eller forpliktelse og slit når du tenker på aktiviteten din? Tilfører aktiviteten deg energi eller tapper den deg for det?
 - c) Når du er i prestasjonssituasjon (konkurranse/forestilling/konsert) på hvilke måter preger prestasjonspress og angst deg? Er det først og fremst deg selv som presser, eller kjenner du på ytre press? På hvilken måte?
 - d) Hvordan opplever du din verdi som menneske? Hvordan står det til med din selvtilitt? I hvor stor grad opplever du at dine opplevelser av egen verdi er knyttet til dine prestasjoner i aktiviteten din?
 - e) Hvilke egenskaper har du utviklet gjennom aktiviteten din som du drar nytte av i livet ditt utenom?
 - f) Er du fornøyd med livet ditt? Er det blitt slik du så for deg når du var liten og drømte om fremtiden?
 - g) Hva ville du endret i livet ditt om du kunne levd om igjen?

For kunstnere:

- h) Hvilken betydning opplever du at det å gå inn i kunstneriske prosesser har å si for deg?
Hva gir det deg som menneske?

Del 5: Oppsummering

- 1. Har du lyst til å utdype noe av det du har sagt?** (Spørre om hvert tema og evt. oppsummere mitt hovedinntrykk (parafasere). (se an tiden litt)
 - a. I forhold til dine personlige egenskaper?
 - b. I forhold til din opplevelse av lærings/treningskulturen?
 - c. I forhold til din utviklingskurve og prestasjonsutvikling
 - d. I forhold til din psykiske velvære og livskvalitet
- 2. Er det noe du tenker at jeg ikke har spurt om som er relevant å få med?**
- 3. Var det lett eller vanskelig å svare på spørsmålene?**
- 4. Har du noen spørsmål eller kommentarer til selve intervjuet**

Tusen takk for intervjuet og for at du stilte opp!

