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25 **Perceptions of need-support when "having fun" meets "working hard" mentalities in**
26 **the elite sport school context**

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Abstract

52 The aim of this study was to investigate athletes and coaches' perceptions of coach need-
53 supportive behaviour and to increase our understanding of the athlete-coach dynamic in the
54 endorsement process. Video-based interviews were conducted with 11 athletes and 10
55 coaches at an elite sport school in Norway. The interviews were analysed, and narratives
56 were used to tell the story of the predominantly *hedonic athlete* (the aim of sport
57 participation is having fun) and the predominantly *eudaimonic athlete* (the aim of sport
58 participation is development). There was an obvious endorsement misfit between the group
59 of athletes labelled hedonic and their coaches due to the expectations and demands of the

60 elite sport school context. The paradox of the endorsement process intensifies when the
61 "have fun" mentality of the athlete meets the "work hard" mentality of the coach, which,
62 for some athletes, undermines their need-satisfaction, commitment, performance, and well-
63 being. The findings suggest a strong need for a fit between coach and athlete aims for
64 successful coaching in the elite sport school context.

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66 *Keywords:* need-supportive coaching, hedonia, eudaimonia, coach-athlete relationship

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78 **Perceptions of need-support when "having fun" meets "working hard" mentalities in**
79 **the elite sport school context**

80 Coaches' interpersonal style plays an important role in creating a social context that
81 fosters autonomous motivation and adaptive athlete outcomes (Fenton, Duda, Quested, &
82 Barrett, 2014; Langan, Blake, & Lonsdale, 2013; Smith, Ntoumanis, & Duda, 2010). A need-
83 supportive coaching style can support athletes' basic psychological *needs* and facilitate
84 optimal motivation and positive persistence in sport (Ntoumanis, 2012). Paradoxically,
85 however, need-support is only as supportive as the athlete perceives it to be. The athletes'
86 perception of having choices and their willingness to endorse the training context and their

87 coaches' suggestions—despite intense demands, structure, rules, and expectations—is
88 fundamental for their autonomous sports motivation and adaptive outcomes. Nevertheless,
89 there is a paucity of research examining and comparing athletes' and coaches' perceptions of
90 coach *need-supportive* behaviours at the elite level. The aim of this study is to increase our
91 understanding of the athlete-coach dynamic in the endorsement process.

92 Two central concepts in theorizing young elite athletes' sport motivation are
93 *eudaimonia* and *hedonia* (Huta & Waterman, 2014). Eudaimonia is defined as striving to use
94 and develop the best in one's self in ways that are congruent with one's values, and hedonia is
95 defined as striving to experience pleasure, enjoyment, and comfort (Huta & Ryan, 2010).
96 When these concepts are defined as aims, they are both orientations (Huta & Waterman,
97 2014), which allows us to discuss the concepts in parallel terms (Huta & Ryan, 2010; Huta &
98 Waterman, 2014; Ryan, Curren, & Deci, 2013). Hedonia and eudaimonia are further defined
99 as orthogonal concepts (Huta & Ryan, 2010). Thus, athletes can have a range of combinations
100 of hedonic and eudaimonic aims simultaneously. Youth with a hedonic approach to sport
101 participation predominantly *seeks* pleasure and fun, whereas youth with a eudaimonic
102 approach to their sport participation predominantly *aims* for development of their potential.
103 Athletes who are high in both hedonic and eudaimonic aims respectively seek pleasure and
104 fun and development through their sport participation. Hence, in this study we identified and
105 analysed the hedonic and eudaimonic athlete profiles.

106 Both approaches to sport are culturally embedded and stereotyped in the media.
107 Snowboarding tends to be portrayed and seen as the hedonic "prototype" due to the historical
108 resistance of the structures and disciplines of other sports. For instance, Terje Håkonsen, one
109 of the best snowboarders of all times, was an important voice against snowboarding becoming
110 an Olympic sport (Heino, 2000). This is further supported by the Norwegian Snowboard
111 Federation's vision, which emphasizes the *fun* aspects of snowboarding (Snowboardforbundet,

112 2018). This is also true for freeski. To the contrary, the cross-country skiing, biathlon and
113 alpine skiing in the Norwegian context may be a predominantly eudaimonic "prototype." For
114 example, most winning winter Olympian of all times, cross-country skier Marit Bjørgen, is
115 portrayed as a very hard-working athlete by the media in Norway. The Norwegian Ski
116 Federation's developmental plan for cross-country skiing is an "appropriate long-term
117 developmental guide from early childhood to elite skiers" (Skiforbundet, 2018, para. 1). This
118 represents a typical eudaimonic approach to sport, and this approach is dominant in the
119 increasing number of sport schools.

120 **The elite sport context and elite sport schools**

121 Sports schools are vital in the talent development process in many countries such as
122 Germany, China, Canada, England, Sweden, Singapore, Italy, and the Netherlands (De Knop,
123 Wylleman, Van Houcke, & Bollaert, 1999; Radtke and Coalter, 2007; Way et al., 2010). The
124 transition into the upper secondary school (ages 16-19) is an important period for athletes as
125 they are introduced to a more intense and structured period both in sports and academics
126 (Bloom, 1985; Wylleman and Lavalley, 2004). Sport schools in Norway are acknowledged as
127 talent development pathways (Kristiansen & Houlihan, 2017), and in 2016 a total of 3131
128 athletes and 461 coaches attended and worked at 12 private and 22 public Norwegian sports
129 schools (Å. Fiskestrand, personal communication, August 8, 2017).

130 The non-profit private foundation *The Norwegian College of Elite Sport* (hereafter
131 NTG) is a network of elite sport schools in Norway. NTG currently runs six schools with 990
132 students participating in 27 different sports (Norges Toppidrettsgymnas, 2018). Out of the
133 approximately 34 elite sport schools in Norway, NTG is the most successful (Berntsen,
134 Lemyre, & Røe, 2014). Current and former NTG athletes have achieved considerable success,
135 accumulating 175 world championship medals, and 26 gold, 17 silver, and 21 bronze medals
136 in the Olympics (Norges Toppidrettsgymnas, 2018). For the 2014 winter Olympics 30% of

137 the Norwegian team members were current or former NTG students and for the 2018
138 Olympics 25% were (Norges Toppidrettsgymnas, 2018). Arguably, NTG is a stepping-stone
139 for national teams and professional sports.

140 **Theoretical framework**

141 Self-determination theory (SDT), first formulated by Deci (1975) and extended by
142 Deci and Ryan (1985, 2000; Ryan & Deci, 2017), is an organismic theory of human
143 behaviour that is focused on the ways in which social contextual factors influence peoples'
144 thriving and growth. SDT differentiates types of motivation along a continuum from
145 controlled to autonomous and is based on the assumption that higher relative autonomy is
146 associated with greater quality behaviour and persistence (Ryan & Deci, 2017).

147 The theory distinguishes between three types of motivation. *Amotivation* can be
148 described as athletes going through the motions with no intention to act and thus have non-
149 regulation. *Extrinsic* motivation leads to people engaging in behaviours because of the
150 instrumental value of the behaviour. This form of motivation has four major types of
151 motivational regulations: external, introjected, identified, and integrated. Through the process
152 of internalization athletes can take in values, beliefs, or behavioural regulations from the sport
153 context and transform them into their own. Successful internalization leads to athletes
154 practicing their sports, also when the coach is not there to monitor them. The “cornerstone” of
155 SDT’s theoretical foundation is the concept of *intrinsic* motivation (Ryan & Deci, 2017).
156 Intrinsically motivated athletes act because the activity is inherently satisfying to them (Deci
157 & Ryan, 2002). According to the theory, intrinsic motivation is both a basic and a lifelong
158 psychological growth function within humans.

159 Central to SDT is the distinction between controlled and autonomous motivation.
160 Autonomous motivation has an internal perceived locus of causality whereas controlled
161 motivation has an external perceived locus of causality. The implication of autonomous

162 motivation is athletes engaging in an activity with a full sense of willingness and volition, and
163 according to the theory, intrinsic motivation is the only true form of autonomous motivation.
164 In contrast, controlled motivated athletes feel coerced to practice (or do other sports specific
165 activities) in specific ways. Extrinsic motivational regulations are not inherently satisfying,
166 and extrinsic incentives are needed to act. Extrinsic regulations vary in their degree of
167 autonomy along the relative autonomy continuum, spanning from relatively controlled
168 (external and introjected regulations) to relatively autonomous (identified regulation and
169 integrated regulation) (Deci & Ryan, 2002, 2000). The different regulations can coexist within
170 the sports domain and several of them can be operative within the same practice session
171 (Ryan & Deci, 2017).

172 To sum up, autonomous motivation, when athletes whole-heartedly engage in the
173 activity and practice to become more skilled players because it is enjoyable or important to
174 them is associated with athletic development, sustained sports participation, enjoyment, and
175 well-being and tapping into this motivation is preferable when working with young athletes
176 (Balaguer et al., 2012; Carpentier & Mageau, 2013; Felton & Jowett, 2015). This is because
177 acting for controlled reasons is associated with ill-being (Healy, Ntoumanis, van Zanten, &
178 Paine, 2014), burnout (Jõesaar, Hein, & Hagger, 2012), and lack of persistence (Quested et
179 al., 2013). The process of eudaimonia is central when considering optimal functioning and
180 wellness for athletes. This is also present in the recent SDT writings, in which the notion of
181 *flourishing*, a concept closely related to eudaimonia or living well, is given more focus (Ryan
182 & Deci, 2017).

183 **The need-supportive coaching style**

184 Another important aspect of SDT is the assumption that all humans have three basic
185 psychological needs—*autonomy*, *competence*, and *relatedness* (Ryan & Deci, 2017).
186 Autonomy concerns the extent to which people experience their behaviour to be volitional or

187 self-endorsed (Ryan & Deci, 2017). As Soenens, Vansteenkiste, and Sierens' (2009) work has
188 shown, being autonomous is not equated to making choices (being independent). An athlete
189 can feel autonomous in the absence of choice when he or she endorses his or her coaches'
190 mandated activity because he or she agrees with it. When feeling ownership of one's own
191 actions the need for autonomy is satisfied and the athletes' resources, interest, and capacities
192 are invested in the action. The opposite of self-endorsement is feeling coerced, compelled, or
193 seduced to act by forces external to self (Ryan & Deci, 2017).

194 To feel competent, the athletes' actions must be perceived as self-organized or
195 initiated, in other words, they feel a sense of ownership of the activities that they succeed in
196 (Deci & Ryan, 1985). When feeling that one masters the drills and exercises in practices, and
197 the goals are self-set, the competence need is satisfied.

198 The need for relatedness is the need to perceive that others care for us unconditionally
199 (Ryan & Deci, 2017). To belong, be significant, and matter in the eyes of others is a primary
200 goal of human behaviour. When athletes feel part of their sport's social group and have a
201 sense of belonging with their peers or coaches, the need for relatedness is satisfied and the
202 athlete experiences need satisfaction.

203 According to basic psychological needs theory (BPNT), coaches can foster athletes'
204 autonomous motivation through their *interpersonal style* when athletes perceive their needs to
205 be satisfied (Mageau & Vallerand, 2003). The coach's interpersonal style reflects the
206 strategies he or she usually adopts when interacting with his/her athletes.

207 As need support is defined as autonomy support accompanied by structure and
208 interpersonal involvement (Mageau & Vallerand, 2003; Matosic, Ntoumanis, & Quested,
209 2016; Taylor & Ntoumanis, 2007), the coach, as an important authority figure, should
210 combine all three aspects of need-support. Autonomy support (requires this person to take
211 others' perspective in consideration, acknowledge others' feelings, promote choice and

212 decision-making, and offer a meaningful rational whilst minimizing external demands)
213 accompanied by structure (there are rules) and involvement ("I care about my athlete") makes
214 up the need-supportive style (Mageau & Vallerand, 2003). Then need-support can be
215 conceptualized as the interpersonal behaviours that encourage the satisfaction of the three
216 basic psychological needs through support of athletes' autonomy, competence, and
217 relatedness (García-Calvo, Sánchez-Oliva, Leo, Amado, & Pulido, 2016; Rocchi, Pelletier, &
218 Desmarais, 2017).

219 Coaches who provide need-support can help athletes internalize extrinsic motivation
220 and develop the psycho-social maturity of *identified motivation* (Deci & Ryan, 2000).
221 **Identified motivation** is needed to develop one's potential and willingness to take on tasks that
222 may not be enjoyable, such as repetitive and demanding drills. In contrast, controlling
223 behaviours are need undermining and include chaos (vs structure), hostility (vs warmth), and
224 coercion (vs autonomy-supportive) (Skinner & Edge, 2002). The absence of need-supportive
225 behaviours does not automatically imply the presence of thwarting behaviours (Sheldon,
226 2011). An interpersonal style that actively thwarts athletes' needs can be considered
227 controlling (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011). A need
228 supportive style is preferable over a controlling interpersonal style, which may actively thwart
229 athletes' needs (Bartholomew et al., 2011). The concepts of controlling style and need-
230 supportive style are orthogonal (Matosic & Cox, 2014; Soenens et al., 2009). Initial empirical
231 evidence indicates that coaches often use a combination of the behaviours from these two
232 interpersonal styles (Matosic et al., 2016).

233 Despite knowledge about and attempts to foster need-supportive coaching, there are
234 determinants that influence coaches' interpersonal style: the coaching context, perception of
235 athletes' behaviour and motivation, and coaches' personal orientation (Mageau & Vallerand,
236 2003). First, pressure from above is the pressure coaches feel to perform—this can determine

237 how they act (Mageau & Vallerand, 2003; Pelletier, Séguin-Lévesque, & Legault, 2002).
238 Secondly, if coaches perceive their athletes to be lazy and lacking incentives and engagement,
239 they tend to pressure these athletes and downplay the motivation they wish to see (Rocchi,
240 Pelletier, & Couture, 2013). Thirdly, coaches' beliefs about what good coaching is influences
241 how they behave toward their athletes.

242 **Perceptions of need-supportive behaviours**

243 The competitive context typically involves extrinsic incentives and contingencies of
244 approval that constantly challenge autonomous motivation (Cheon, Reeve, Lee, & Lee, 2015;
245 Ryan & Deci, 2017; Standage & Ryan, 2012). For instance, if an athlete perceived pressure to
246 win (such as prize money), then this impacts intrinsic motivation negatively. However,
247 winning can also have an informational functional significance and enhance intrinsic
248 motivation if competence feedback is offered in a need-supportive way (Ryan & Deci, 2017).

249 Despite the importance of fostering or designing need-supportive environments, few
250 studies have investigated multiple perspectives (i.e., athletes' perceptions, coach perceptions,
251 observer's perceptions) of coach interpersonal behaviour. In one of the few studies on multiple
252 perspectives, Smith and Smoll (1996) found low or no correlation between coaches' self-
253 reports and observers' ratings of coaches' interpersonal behaviour. Athletes' (young team
254 players') ratings correlated more with the observers' ratings than that of the coaches. In a
255 more recent study, Lyons and his colleagues examined coach and athlete perceptions of
256 autonomy-supportive coaching in a group of Olympic ski cross athletes and found [that there](#)
257 [were](#) consensus between [coaches providing and athletes](#) perceptions of autonomy-supportive
258 behaviours (Lyons, Rynne, & Mallett, 2012).

259 In this study, we use the term need-supportive strategies rather than separate them into
260 autonomy-supportive strategies, relatedness-supportive strategies and competence-supportive
261 strategies because the needs are interlinked, and the different strategies support more than one

262 need (Aelterman et al., 2013). The multiple needs-effect has been observed both in
263 intervention-based studies (Cheon et al., 2015) and correlational studies (Adie, Duda, &
264 Ntoumanis, 2008; Amorose & Anderson-Butcher, 2007; Gagné, Ryan, & Bargmann, 2003;
265 Hodge & Lonsdale, 2011) and longitudinal correlational studies (Adie, Duda, & Ntoumanis,
266 2012; Pelletier, Fortier, Vallerand, & Briere, 2001). For instance, when coaches *inquire about*
267 *and acknowledge athletes' feelings*, they communicate their involvement as well as their
268 respect for the athletes, thus influencing the athletes' perceptions of relatedness in addition to
269 autonomy. Perceptions of competence is influenced directly by coaches' *non-controlling*
270 *competence feedback*, which also supports autonomy (Mageau & Vallerand, 2003).

271 SDT suggests that coaches who support need-satisfaction facilitate intrinsic
272 motivation, internalization and integration of extrinsic motivation, and an autonomous
273 causality orientation (Ryan & Deci, 2017). The facilitation of intrinsic motivation is hedonic
274 in nature as it aims to foster athlete enjoyment in sports, but what happens with predominantly
275 hedonic athletes who work with coaches who aim for their athletic development? From the
276 above it is apparent that elite sport contexts are predominantly eudaimonic in nature (Huta &
277 Waterman, 2014) due to the focus on winning. **As a result, coaches** often seek to develop
278 athletes' potential through internalization of extrinsic motivations such as the knowledge and
279 values for optimal development of athletic skills through instilled structure, rules, and
280 demands. Athletes with a predominately eudaimonic approach to sport share this aim with the
281 elite context, while hedonic athletes will struggle more to see the benefit of being part of such
282 a program. We know little about how need-support is perceived by athletes with
283 predominantly hedonic aims—which would be misaligned with their context--and we also
284 know little about athletes who resist the internalization and integration of the values and goals
285 of their context. Based on this reasoning, the purpose of this investigation was to gain insight
286 into the extent to which athlete and coach perceptions of coach need supportive behaviours

287 match. Second, we wondered, how does the fit between coach and athlete aims (hedonic and
288 eudaimonic) for their sports participation influence the athletes' endorsement of coaches'
289 behaviours, structure, and rules?

290 **Method**

291 After obtaining approval from the Norwegian Social Science Data Services, informed
292 consent was obtained from athletes and coaches before conducting the interviews (May 8th-
293 10th, 2017).

294 **Context and Participants**

295 The athletes and coaches at NTG face a myriad of challenges on a regular basis.
296 During the off-season, the young winter sport athletes have two training sessions a day to
297 prepare for high performance through physical, tactical, technical, and mental skill building.
298 This is hard work, can be repetitive, and intrinsic motivational engagement is not enough to
299 develop these skills. In the spring and fall, they travel and have on-snow camps on glaciers in
300 Norway and the Alps (Central Europe). This typically involves on-snow training for the first
301 half of the day, followed by a dry-land training session. In addition, the athletes do school
302 work for a few hours in the evening. The athletes are responsible for packing their lunches,
303 their recovery time, their equipment, being prepared for and focus during on-snow training,
304 and for keeping up their schoolwork. The competitive season typically involves more pressure
305 to perform or win. The young elite athletes (often the best in their sport in Norway and future
306 Olympians) constantly face direct feedback from competition or reward and control from
307 peers, parents, and coaches.

308 Eleven junior elite winter sport athletes aged 16-18 years ($M=17$, 1, alpine skiing $n=2$,
309 freeski and snowboard $n=4$, biathlon $n=3$, cross-country skiing $n=2$), and 10 winter sport
310 coaches aged 25-54 years ($M = 36,4$, alpine skiing $n=2$, cross country skiing $n=3$, biathlon
311 $n=3$, snowboard and freeski $n=2$) were interviewed for this study.

312 **Materials**

313 A manuscript was written based on knowledge about the coaching context and sport
314 and informed by Mageau and Vallerand's (2003) autonomy supportive strategies (see Table
315 2), accompanied by structure and interpersonal involvement. Based on this manuscript, video
316 fragments were produced to reveal seven need-supportive strategies (1.37 - 3.18 minutes). To
317 make the video fragment realistic, athletes and coaches from one of the other NTG schools
318 served as actors. A professional freelance video editor was responsible for the production of
319 the seven videos (filming, editing). The first author supervised the editing and provided
320 context for the need-supportive strategies and the voice-overs. Each video started with a
321 written description of one of the seven need-supportive coaching strategies, and a sport
322 specific scenario was next described by a voice-over while following an introduction-section
323 of freeskiers practicing on-snow, doing flips and tricks on jumps and rail, while music is
324 playing in the background. Next, the videos showed a dialogue between a coach and an
325 athlete or a monologue by the coach. Each scenario was shown in a need-supportive way
326 ("good coach") and a controlling way ("bad coach"). The videos ended with a reflection by
327 one of the athletes on how it felt to be coached in a typical need-supportive style versus a
328 controlling style, which was the main goal of the videos. Next, these video fragments were
329 used as stimulus for questioning because video can help create a meaningful common ground
330 for discussion (Bryman, 2015; Harper, 2002; Pink, 2013).

331 **Interviews**

332 We chose different approaches to the athlete and coach interviews.

333 **Video based focus group interviews with athletes.** The focus group method was
334 chosen to provide in depth information about the members' experiences with their coaches'
335 interpersonal behaviours, and to explore how they discussed this issue (Bryman, 2015). In
336 addition, focus groups allow for a natural conversation pattern. Athletes were appointed into

337 groups based on their sports: Focus group 1: alpine skiing (n=2); Focus group 2: freeski and
338 snowboard (n=4); and Focus group 3: biathlon and cross-country skiing (n=5). The focus
339 group interviews were scheduled and conducted at their school. The seven video fragments
340 served the purpose of line of questioning; they were discussed one by one ("how do you
341 perceive your coach to act out that strategy?").

342 All the interviews started with an informal chat about the athletes' everyday life at ski
343 camp to break the ice. Next, the interviewer played one video at the time, asking the athletes
344 to give examples of how or to what extent their coaches use that need-supportive strategy. A
345 discussion of the athletes' perceptions of their coach ability to use the need-supportive
346 strategies followed. Aiming to be guiding but not intrusive, the interviewer avoided
347 interrupting the naturally occurring discussions between group members. Before moving on to
348 the next video, the interviewer asked if the athletes had any other comments or examples they
349 wanted to share. It was interesting to notice that some of the athletes elaborated on their
350 examples after listening to their fellow athletes. This, we believe, helped to create a more in-
351 depth account of what they think than had we chosen one-on-one interviews (Bryman, 2015).
352 The interviews were audio recorded and lasted from 55 minutes to 75 minutes.

353 **Video based interviews with coaches.** We chose to interview the coaches
354 individually to grasp every coach perception of their use of need-supportive strategies after
355 viewing the seven need-supportive video fragments. Coaches were asked to what extent and
356 how they used the seven need-supportive strategies (one at a time) in their interactions with
357 the athletes. Before watching each video fragment, the interviewer asked the coaches to think
358 about examples of them using or not using these strategies. Each video was on average two
359 minutes long. The interviews took place at the coaches' workplace. The two-way interaction
360 process in the interview setting is the product of the researcher, the participant, and the
361 relationship between them (Finlay, 2002). To create a safe setting and empower the other,

362 communication strategies such as not interfering or expressing our own opinions and
363 paraphrasing as part of the role as an active listener were employed (Sparkes & Smith, 2013).
364 The interviews were audio recorded and lasted about 45 minutes.

365 Both coaches and athletes were informed that their anonymity would be protected, the
366 confidentiality of the study upheld and their freedom to withdraw from the study at any point
367 in time. No consent was withdrawn.

368 **Data analysis and interpretation**

369 The interviews were transcribed verbatim, which resulted in 52 pages of raw text from
370 the coaches' interviews and 40 pages from the focus group interviews with the athletes. To
371 maximize trustworthiness of this analysis, the six step guidelines for thematic analysis was
372 followed (Braun & Clarke, 2006). The first phase was to familiarize ourselves with the data
373 through the interviews and transcription. Then, the text was read and re-read and meaning
374 started to form through generating initial codes (phase two) relevant for illustrating
375 perceptions of the seven need supportive strategies. The text was highlighted with different
376 colours. The different features of the data were systematically organized into a table to help us
377 search for themes (phase three) in the answers of how athletes vs coaches express using or
378 perceiving the need-supportive strategies (Mageau & Vallerand, 2003). Emerging findings
379 were compared with the data to verify understanding of the perceptions of need support
380 through vivid examples, and this was discussed with colleagues (phase four: reviewing
381 themes). Reading, coding, and organizing the full text resulted in thematic maps and tables.
382 Then, a refining of the specifics of each theme led us to define and name themes (phase five).
383 Using these maps and tables, representing coaches' and athletes' perceptions of need-
384 supportive coach behaviours, the process of evaluating codes and clustering took several
385 rounds of reviewing and developing themes to the coded data "quotes" and the dataset as a
386 whole.

387 In this process, another interesting finding was constructed, that of two distinct
388 narratives that are related to the athletes' aims with sports participation (see Table 1). It
389 became clear that there were two different ways to talk about aims of sport participation, and
390 these were related to the athletes' sport and the sport context. The 11 athlete stories have been
391 narrowed into two stories, based on similarities and differences in the narratives. Elliott
392 (2005) defines *narrative* as a way of organizing a sequence of events into a whole, in addition
393 to distinguishing between *first-order* narratives, defined as the stories individuals tell about
394 themselves and their own experiences, and *second-order* narratives defined as the accounts
395 constructed by "researchers to make sense of the social world, and of other people's
396 experiences" (Elliott, 2005, p. 13). The latter do not necessarily focus on individuals, and a
397 particular type of second-order narrative is a *collective story* (Richardson, 1990), which
398 "displays an individual's story by narrativizing the experiences of the social category to which
399 the individual belongs" (p. 25). In the results section, the predominantly *hedonic* athlete is
400 referred to as he (*he* participates in sports to have fun and be stoked) and that of the
401 predominantly *eudaimonic athlete* is referred to as she (*she* participates in sport to develop).
402 The coach of the hedonic athletes was named she and the coach of the eudaimonic athlete was
403 named he to ensure gender equality. We identified four main discrepancy points between
404 coach and the two athlete narratives of need-supportive behaviours (phase six, producing the
405 report). Vivid and compelling quotes were selected, and these quotes relate back to the
406 research question of the coherence between coach and athlete perceptions of need-supportive
407 coach behaviour.

408 Results

409 Before elaborating on the experiences of the predominantly hedonic and
410 predominately eudaimonic athlete, an overview of the fit between the two narratives and their
411 coaches, with a focus on the discrepancies, is offered.

412 [***Table 1 near here***]

413 **Coach-athlete discrepancies**

414 When analysing the coach and athlete interviews, there was an obvious misfit between
415 the group of athletes labelled the predominantly "hedonic" athlete and his coach, while this
416 discrepancy did not exist in the group of athletes we labelled the predominantly "eudaimonic"
417 athlete and her coach. The discrepancy was related to coach and hedonic athlete perceptions
418 of need-supportive coaching skills (see Table 2). The results revealed discrepancies in the
419 hedonic athlete and his coach's perceptions in four of the seven need supportive strategies.

420 [***Table 2 near here***]

421 The four discrepancies (predominantly autonomous strategies) are related to trust,
422 involvement, explanation, and encouragement of initiative. The first discrepancy was found in
423 trust—developing this is a central skill for coaches in respect to avoiding guilt inducing
424 criticism, which may result in controlling statements and tangible rewards. A common theme
425 in the hedonic athlete's stories about training and competition is a lack of coach-trust (see
426 Table 1). The coach on her side offered examples of trusting the athletes to be responsible for
427 on-snow practice. The second discrepancy was related to athlete involvement. It might be that
428 the coach perceived the school structure and the ski academy rules to restrain athlete
429 involvement. Real choices and athlete involvement in decision and solution finding processes
430 is critical to athlete autonomy. The hedonic athlete's coach gave examples of providing
431 choices and how she involved the athlete. Separately, the hedonic athlete experienced a lack
432 of space for being an active part in his own development. The third discrepancy originated in
433 the lack of explanation from coach to athlete. The coach perceived herself to offer meaningful
434 explanations for the chosen exercises and rules to the athlete. However, the hedonic athlete
435 did not find these the rationales meaningful. The final discrepancy was related to initiative
436 and to what degree the athlete feels opportunities for initiative taking and independent work.

437 The data revealed that the hedonic athlete felt hindered in his attempt for initiative. In
438 contrast, the coach gave examples of encouragement of initiative given to the hedonic athlete.

439 In contrast, Table 2 revealed the fit between the eudaimonic athlete and her coach. As
440 the eudaimonic athlete endorsed the structures, rules, training sessions, and other demands
441 from her coach, she perceived the coach to be need-supportive and as helping her in her strive
442 for development. In contrast to the hedonic athlete, she perceived the coach to trust her,
443 involve her, and offer choices and meaningful rationales for the activities.

444 SDT postulates that a need-supportive interpersonal style contributes to greater need-
445 satisfaction (Aelterman et al., 2013; Deci & Ryan, 2000). However, as seen from the results
446 presented in Table 2, sometimes need-supportive acts are not perceived as need-supportive
447 (by the hedonic athlete) or the coaching context creates a gap in the coach-athlete relationship.
448 The coach is also expected to act in line with the values and expectations of her employer
449 (NTG) and according to what she knows about talent development. The context represents a
450 typical eudaimonic approach to sports participation. Consequently, there is a misfit between
451 the aim of the hedonic athlete and the aim of his coach – and self-endorsement is not present.
452 This will be elaborated upon below in the predominately hedonic athlete's story and the
453 predominately eudaimonic athlete's story.

454 **The hedonic athlete's elite development**

455 "Playing" sport is a way of life for the hedonic athlete: "Snowboarding is freedom, it is
456 not *elite* sport, it is life." For the hedonic athlete, the main goal of sports participation is not to
457 become the best: "I am not here to win." The hedonic athlete attends sport school to have
458 more time to "simply snowboard." The schools' focus on training is neither understood nor
459 internalized: "If it was up to me, I wouldn't train at all... I can snowboard all day without
460 becoming tired." Tests and doing drills that are not snowboard or freeski related seem
461 unnecessary: "it is really hard and completely unnecessary that we run 3,000 meters with the

462 other athletes from the other sports." Development principles such as goal-setting are not
463 understood or accepted either—it is simply seen as a waste of time.

464 When the coaches interfere with how the hedonic athlete plays sport, it is perceived as
465 meaningless: "They try to have us develop skills the same way other athletes do...it is a totally
466 different strategy to become a *great* snowboarder." If the coach tells him what to do without
467 discussing it or listening to him, you can be certain he won't listen: "if they just decide to do a
468 thing, and we have to do it, we will not listen to that." The hedonic athlete easily feels
469 pressured and controlled by his coach to act in a specific way: "I feel that they once in a while
470 try to listen, but they still pressure you to do what they want you to do...they still believe *their*
471 *way* is the right way."

472 In short, the worst thing a coach might try to do is to "pressure" the hedonic athlete to
473 act as a eudaimonic athlete: "I feel that the snowboard and freeski program is about to
474 collapse." The hedonic athlete wants his coach to take his initiatives seriously. "Every time I
475 suggest something...it always end up with the coaches saying 'yes, but *we know* what's best for
476 you.'" That is an unacceptable response in the hedonic athlete's eyes. He will for instance have
477 a hard time doing a jump or not try out a hill if he does not see the reason behind the rules and
478 demands from his coach. Learning new tricks and improving his skills must happen
479 spontaneously and when having fun on the hill: "Suddenly you get *stoked* and want to try it".
480 *Stoked* is a frequently used word by the hedonic athlete to express excitement. Any demand of
481 structure is perceived as lack of trust and respect—it is boring and interferes with a 'fun'
482 lifestyle and is consequently questioned: "my coach told me I have to write a training log. I do
483 not like writing in it, but we *have* to write in it. When I ask why, she says: 'how else can I
484 know that you have been practicing?' In short, a hedonic athlete does not accept coaching, as
485 almost any attempt seems for him to reduce his control, and he feels that he practices because
486 the coach demands it of him (external perceived locus of causality).

487 The eudaimonic athlete's elite development

488 It is "easier" to coach the eudaimonic athlete as she has a broader perspective on
489 development—she accepts the duality that hard work can also be enjoyable: "obviously, we
490 are practicing because we want to be good at it." For her, it is all about goal-setting and
491 reaching goals: "I know what I want to do, and what my goal is, and the coaches help me to
492 reach that goal." The coach is a *helper* in the development process, and the help is needed to
493 excel: "The coaches support me so I can develop my skills... if we are struggling, the coaches
494 can film us, so that we can analyse it later. In this way, she can constantly keep developing."

495 To be coached does not reduce her perception of independence: "... we know a lot
496 about what we need to practice to achieve what we aim for." Trust is also important for the
497 eudaimonic athlete, and she feels trusted by her coach: "they support my choices in the
498 planning process." Furthermore, "you do not practice just to practice, you practice for a
499 reason." In this context, planning is seen as an important tool for success, hence, planning and
500 goalsetting become meaningful. The eudaimonic athlete expects responsibilities and
501 demonstrates awareness of her responsibilities within the structure: "you have to be serious
502 and show up to practice with the right equipment, you have to get up early enough to be there
503 on time and so on. You have to give a little to get a little."

504 Discussion: When "work hard" meets "have fun" mentalities

505 We identified two main challenges (and paradoxes) associated with the misfit between
506 the hedonic athlete and elite sport expectations and coaching.

507 The coach challenge: The elite sport school context

508 Young elite athletes can benefit from instructions and structure provided by
509 experienced coaches (Mageau & Vallerand, 2003). The potential for enhanced motivation and
510 improved performance is present if coaches would instead of using controlling strategies
511 (coach centred), adapt their own behaviours to fulfil their athletes' needs of autonomy,

512 competence, and relatedness (athlete centred). NTG's structure is eudaimonic in nature, and
513 the coach must operate within an elite sport school context and its values, goals, aims, and
514 curriculum. The coaches followed the recommendations of providing rationales and give
515 choices etc., but the hedonic athletes still felt controlled. The discrepancies in our data is a
516 clear sign of how the hedonic athlete perceives the mandated activity and rules in the sports
517 context as negative and shows that he neither understands the importance of nor accepts the
518 training activities and structure of the school and coaches' values.

519 The coaches are evaluated against the school's vision of developing athletes to the
520 point of them being 'capable of winning medals in international championships, qualifying for
521 university and academic education and developing excellent ethical principles' (Norges
522 Toppidrettsgymnas, 2018, para. 3). Hence, the coaching context influences coach behaviour
523 (Mageau & Vallerand, 2003). It is challenging for coaches when athletes do not endorse
524 coach behaviours due to the common "seeking fun and pleasure" theme in the snowboard
525 subculture (Heino, 2000) and the same is true for freeski. Endorsement of coaches' actions
526 will happen if coach and athlete values are in coherence, or when the athletes believe in and
527 trust the importance of the structure provided by their coaches. Discrepancies between coach
528 and athlete aims might be a misfit between the athlete and the sport school context. The
529 school context may end up being a barrier in the athlete-coach relationship if not discussed or
530 considered.

531 **The Athlete challenge: Culture trumps structure**

532 The data reveal that the hedonic athlete engaged in mandated activities such as on-
533 snow practice in a specific snowboard park or keeping a training log because his coach *told*
534 him to do so. This pressure on how to think, feel or behave, termed controlled motivation
535 (Reeve, Deci, & Ryan, 2004), clearly undermined the hedonic athletes' intrinsic motivation
536 and impacted his well-being and sport participation (Mageau & Vallerand, 2003; Ryan &

537 Deci, 2017). It also seems that he expected the sport culture at the sport school to be similar to
538 the snowboarding and freeski sports culture. This culture has an emphasis on *fun* and non-
539 organized training, and this is reflected in the stories they tell about their heroes. These
540 findings are in consonant with Soenens et al.'s suggestion that personality, culture, and other
541 variables can alter whether or not a person will perceive a behaviour as controlling (Soenens,
542 Vansteenkiste, & Van Petegem, 2014). Soenens et al.'s model sheds important light on the
543 implications of coach interpersonal behaviour because once people perceive the context as
544 controlling, they experience negative outcomes. There is no fit between coach demands and
545 the stories of his heroes, who have won the X-games, the "Legend Games" and who have
546 "never been in the gym." Furthermore, these stories may lead to self-handicapping strategies
547 and reduce the hedonic athlete's chances of developing his skills, as he neglects the extensive
548 empirical evidence that practice is necessary for elite level performance in any domain
549 (Ericsson, Charness, Feltovich, & Hoffman, 2006; Ericsson, Krampe, & Tesch-Römer, 1993;
550 Starkes & Ericsson, 2003).

551 Finally, the hedonic athlete's beliefs about practice not being necessary, fun, or
552 meaningful are at the core of the discrepancies between the hedonic and the eudaimonic
553 narratives. Expectation clarification seems important for the endorsement process when the
554 rationales given by the coach are not meaningful to the athlete and constant testing of rules
555 and school structure may be the end result. The elite sport context is demanding, and the "we
556 do not practice" mentality is not part of this. The challenge is that, as our findings show, even
557 when coaches offer sound rationales, give explanations for demands and rules, the hedonic
558 athlete does not perceive it as need-supportive. Instead, he sees it as controlling.

559 **Understanding dilemmas: How to break the vicious circle?**

560 Coaches perceive the hedonic athlete to have low autonomous motivation, and in
561 response, they increase their use of controlling behaviours to get him to practice *enough* to

562 develop elite athlete skills. Paradoxically, the coaches' reaction to what they see as a lack of
563 initiative in athletes (e.g., reducing independent trainings) – more controlling behaviour –
564 results in decrease in the very motivation they wish to increase in their athletes.

565 On the other hand, athletes emit behaviours that generate the very controlling
566 strategies they do not wish in their sport lives. Instead, the hedonic athlete simply perceived a
567 lack of respect. We would like to argue that this has become a *vicious circle* (Mageau &
568 Vallerand, 2003). This is problematic due to the importance of need-support for
569 internalization of extrinsic motivation on the elite level (Ryan & Deci, 2017). To "have fun"
570 mentality without the "working hard" mentality is a misfit with the NTG's aim to develop elite
571 athletes, and thus challenges the internalization process. If no external reasons are meaningful
572 to the athlete, internalization can become challenging, and these athletes will be challenging
573 to coach. To explain how need-supportive coaching works in practice, three suggestions for
574 how to facilitate internalization of the values in the elite sport context are provided below.

575 *Implications for coaches*

- 576 1. Communicate the values and expectations of the sport context to athletes in the
577 application process. This can be an important starting point to avoid a person-
578 environment misfit. A key question in the recruitment process is: Is the athlete willing to
579 accept those expectations?
- 580 2. Internalization of extrinsic motivation takes time and is hard work. Coaches should
581 challenge and involve the athletes' heroes to "tell the truth" both to the media and to the
582 youth in the sport school setting.
- 583 3. The Federations and other key stakeholders that represent the subculture are encouraged
584 to communicate to young aspiring snowboarders and freeskiers that enjoying the process
585 and having fun does not mean not working hard. By getting "heroes" to define what fun
586 means for *them* and explain how it feels to learn and develop a new trick may give young

587 athletes a different picture of how to become a great snowboarder or freeskier. The
588 Snowboard Federation and the part of the Norwegian Ski Federation that is responsible
589 for freeski is encouraged to communicate what they expect from a national team athlete
590 exemplified by their cooperation with the Norwegian Olympic Top Sport Centre. In
591 addition, the national team coach can outline the time required and effort needed to
592 develop new skills. All these examples will make the job easier for the elite sport school
593 coaches, when information about the reality of expertise development is available to
594 young athletes. In this way, young athletes have a chance to relate to heroes who work
595 hard *and* have fun.

596 **Limitation and future direction**

597 We aimed at providing insight into the subjective experiences of the predominately
598 hedonic and the predominately eudaimonic athlete in this investigation of coach-athlete
599 relationships. The snowboard/freeski athletes used in this investigation had stereotypical
600 hedonic aims, and it was easy for us to reveal how challenging it can be for both athletes and
601 coaches in predominantly eudaimonic contexts for elite development. This might be seen as a
602 limitation. However, the methodological approach used with video-based interviews and
603 focus group interviews resulted in a common ground for understanding and discussion of
604 need-support and the endorsement process. In these settings the participants shared
605 experiences that they may not have shared in separate interviews, and this is a
606 strength. Taking this into consideration, we suggest that the above recommendations for
607 coaches in freeski and snowboard may be generalized to other contexts in which
608 predominantly hedonic athletes meet a predominantly eudaimonic sport context. The
609 discrepancies between athletes and their sport contexts may be present in a local or regional
610 sports context as well as in more elite, national, or talent developmental contexts where
611 coaches, parents, and administrators expect athletes to have eudaimonic aims for their sports

612 participation, which then negatively influences predominantly hedonic athletes' enjoyment in
613 sports participation.

614 An increased understanding of person-environment fit influence on the endorsement
615 process may be an important endeavour for moving SDT-research and coach education
616 forward and improve the psychosocial and performance outcomes in elite sports. Aims can be
617 seen as the deeper reasons to participate in sports rather than the surface content of activities
618 (Huta & Ryan, 2010). Hence, how realistic is successful need-support when context and
619 athlete aims are misaligned? The practical significance of this study is improved knowledge to
620 use as a base for the design of social environments that optimize athletes' development,
621 enjoyment, and well-being.

622 **Conclusion**

623 This novel study aimed to explore athletes' (predominantly hedonic and predominately
624 eudaimonic athlete) and coaches' perceptions of coach need-supportive behaviours to increase
625 our understanding of the athlete-coach dynamic of the endorsement process. A fit between
626 coach and athlete aims result in shared values and meaningfulness of activities, rules, and
627 demands, and makes endorsing possible. Self-endorsement of one's actions can be an
628 important facilitator of positive affect and enjoyment (Ryan & Frederick, 1997). While
629 hedonia relates to the short term/in the moment positive affect, eudaimonia has a cumulative
630 effect on positive affect. This means that working hard can also be *fun* and *enjoyable*. As
631 hedonia and eudaimonia are orthogonal concepts (Huta & Ryan, 2010), the coach needs to
632 know his athlete and trigger/combine the hedonia aspects in daily training. For this to happen,
633 hedonic athletes need to learn, and they would be better off with a broad definition of *fun*, if
634 their aim is to become an elite athlete. One coach-athlete duo who manages this balance is
635 2017 World champion 400-meter hurdler Karsten Warholm and his coach Svein Olav Alnes.
636 In interviews, they both stress their unique humour and the fun they both have in the hard

637 work that is their training process. While the coach is being labelled a wizard (Folvik &
638 Strøm, 2017), he simply explains that some laughter and bad jokes take the edge off the
639 toughness and seriousness—which is important for young athletes. For continued involvement
640 in elite sport, this is an important aspect to consider when coaching young athletes. This is a
641 good example of what happens when "have fun" mentality of the athlete meets the "work
642 hard" mentality of the coach--it does not necessarily mean that the athletes' need-satisfaction,
643 commitment, performance, and well-being is always undermined. Thus, coaches should be
644 encouraged to make room for what athletes experience as *fun* in the internalization process.
645 As such, we would argue that there are things to learn from the hedonic athlete as well. After
646 all, it is intrinsic motivation that has the highest quality (Ryan & Deci, 2017). It is important
647 to remember that hedonic aims and eudaimonic aims relate to different forms of well-being
648 empirically and embracing both aims is associated with the greatest well-being (Huta & Ryan,
649 2010).

650

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