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Negative affect in sustained flow: An investigation into adverse consequences of prolonged engagement

Abstract. Sustained flow (SF) is a motivational phenomenon characterised by long-term, heightened engagement in pursuit of personally meaningful goals (Dörnyei et al. 2014). As SF experiences allow individuals to produce exceptional accomplishments, it was initially conceptualised that positive emotionality is the only type of affect associated with the flow. However, a closer analysis of former studies revealed that negative emotions, such as frustration or anxiety, are not uncommon for the phenomenon at hand (Ibrahim 2016; Muir 2020; Sak & Gurbuz 2022). Considering the scarcity of prior efforts to scrutinise SF experiences for the presence of negative affect, the present study was initiated to fill the gap in SF-related research. Following the sampling phase, which sought to identify prospective SFs amongst 163 adult individuals learning foreign languages, thematic analysis was applied to elucidate the nature of the affect experienced by the respondents. The final sample consisted of 4 participants who reported experiencing severe negative emotional stimulation associated with their SFs. Based on these accounts, three major sources of negative affect were identified, i.e., preoccupation beyond SF requirements, inner coercion to perform SF routines, and a prolonged sense of loss. While instances of negative affect associated with SF are relatively rare, it was found that this type of emotionality may cause some experiences to cease prematurely, and some of its potential consequences may exceed the lifespan of SF.

Keywords: sustained flow, negative affect, second language motivation, prolonged engagement, positive emotionality

1. Introduction

Motivation has long been considered a valid predictor of learners' success in learning a foreign language (FL) (Dörnyei & Schmidt 2001). Yet, no consensus has been reached

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as to why some individuals are more skilful in maintaining their dedication over time. In efforts to partially remedy this dilemma, Dörnyei, Muir, and Ibrahim (2014) put forward the concept of sustained flow and postulate that SFs² are motivational surges of extreme intensity that emerge when a number of personal, contextual, and temporal factors come together to help an individual discover an opportunity to pursue personally meaningful goals. The construct bears similarities to Csikszentmihalyi's (1990) concept of *flow*³, which depicts short-term, yet complete absorption in intrinsically rewarding tasks. However, contrary to their mother construct, SF experiences are believed to cover timescales of months or even years (Pietluch 2022). Additionally, while engagement in flow stems from sheer pleasure generated by a task itself, those affected by the SFs regularly perform tasks that may not be intrinsically enjoyable in contexts other than that of an SF experience (Muir & Gümüş 2020). The unique motivational qualities of the phenomenon are believed to stem from the combination of tangible, personally meaningful objectives (such as improving one's language proficiency to match the requirements of a study abroad programme) with a facilitative structure (including goal-centred routines and frequent progress markers), allowing individuals to successfully sustain their dedication. Although individual SFs vary in intensity, focus, and length, the phenomenon is typically characterised by the presence of three distinguishing characteristics, namely goal/vision-orientedness, salient facilitative structure, and positive emotionality (Dörnyei et al. 2014).

1.1. Goal/Vision-orientedness

The directional nature of SF experiences makes them qualitatively different from random motivational pursuits and, while experiencing the flow, individuals navigate through the path leading towards their personally meaningful goals (Muir 2016). However, in the case of more demanding endeavours, even a firmly anchored desire to accomplish may not suffice in producing the desired achievement. Thus, although emotionally gratifying and personally meaningful objectives are central to the phenomenon at hand, the initial scholarship on SFs sought to explain their atypical intensity and permanence in the presence of the vision element (Dörnyei & Kubanyiova 2014; Dörnyei et al. 2015). Cox (2012: 12) explains that “vision operates within the constraints of reality so that the human brain perceives an experience as a genuine opportunity for action”. On top of providing cohesion and direction to one's efforts, vision is believed to transform abstract, cognitive goals into tangible images of goal achievement. For instance, the vision of becoming

2 As suggested by Ibrahim and Al-Hoorie (2018), the term SF is used throughout the paper to acknowledge the contribution of the ‘*flow*’ construct to the conceptualisation of Directed Motivational Currents (DMCs) and avoid terminological proliferation.

3 For more information on the concept of flow see Csikszentmihalyi (1990).

a teacher goes far beyond obtaining adequate qualifications; individuals whose goals are infused with a strong sensory element of vision would most typically conjure up the images of performing the actual profession, enabling them to experience the corresponding joy prior to goal accomplishment. While the presence of the vision element has been frequently used to discriminate between SFs and standard cases of motivated behaviour, it was recently postulated by Al-Hoorie and Al Shlowiy (2020) that vision may not necessarily be a prerequisite of an SF experience. A closer analysis of SF studies to date seems to corroborate this view, as some SF accounts described in the relevant literature indeed did not involve conjuring up mental images of future achievement (Henry et al. 2015; Ibrahim 2020). Although there may be no solid basis for considering vision as the major driving force behind all SF experiences, adding the visionary quality to a personally relevant goal may contribute to inducing prospective SFs and maintaining the motivational qualities of the phenomenon (Sak & Gurbuz 2022).

1.2. A salient facilitative structure

The structure of SF experiences is characterised by three hallmark features which, combined, create somewhat of a facilitative motivational scaffolding for those experiencing the phenomenon. Dörnyei et al. (2014) allege that SFs do not magically drift into being but are consciously launched when individuals find themselves in the right personal, contextual, and temporal circumstances to pursue concrete and meaningful future identities. This auspicious alignment of factors is believed to generate an influx of motivational energy that ongoingly fuels an experience (Dörnyei et al. 2014). Additionally, those affected by the phenomenon typically develop behavioural routines that allow them to stay connected to their desired accomplishments. As such behaviours are conducive to one's future identity, not only do they not require constant volitional control (Dörnyei et al. 2016), but also the lack of possibility to perform them may evoke feelings of discomfort or guilt (Pietluch 2021). This leads those affected to select SF-related behaviours at the expense of other activities that may potentially impede accomplishment. Lastly, a typical SF account involves the development of certain measures that would allow those affected to assess their efforts. This is achieved through setting various sub-goals which divide challenging endeavours into more manageable chunks and offer tangible feedback on progress (Safdari & Maftoon 2017). Importantly, although the presence of a salient facilitative structure was initially viewed as an indispensable element of an SF experience, a recent review carried out by Jahedizadeh and Al-Hoorie (2021) reveals that some SFs may follow their unique trajectories, and the lack of certain structural properties does not necessarily rule out the existence of the phenomenon.

1.3. Positive emotionality

Positive emotionality that spreads throughout an experience is the final defining component of the SF phenomenon (Dörnyei et al. 2014). This overall positive affect stems from the very heart of SF, namely the ability to pursue a personally meaningful vision. Henry et al. (2015: 330) indicate that “the enjoyment projected from the overall emotional loading of the target vision permeates each step along the way, even including engagement in activities that normally could seem tedious or boring”. By transforming often mundane activities into tasks contributing to the accomplishment of one’s desired vision, SFs provide cohesion to one’s actions and give rise to an unremitting sense of happiness and growth (Pietluch 2022). The positive emotionality while experiencing SF is believed to take two primary forms: (i) *eudaimonic well-being*, with positive affect stemming from an abundance of opportunities to self-actualise, and (ii) *anticipatory emotions*, allowing individuals to experience the rewarding consequences of their end goals prior to their accomplishment (Ibrahim 2020).

2. Research rationale

The initial studies on the SF phenomenon sought to generate confirmatory evidence for the presence of the tripartite model put forward by Dörnyei and his associates (2014) by examining the experiences of adult learners from different backgrounds, including migrant learners of Swedish (Henry et al. 2015) or prospective teachers of English (Zarrinabadi & Tavakoli 2017). Due to its unique motivational properties, it was not long until the construct successfully captured researchers’ attention, giving rise to more focused analyses. To enumerate a few, other studies investigated affective patterns in SF (Ibrahim 2016, 2020), motivational fluctuations while in the flow (Selcuk & Erten 2017; Sak 2020), and the impact of sociodemographic variables (including age, gender, and nationality) on the emergence of the phenomenon (Muir 2016; Ghanizadeh & Jahedizadeh 2017). Other researchers focused on learners’ individual variables and linked SF experiences with higher autonomy and willingness to communicate (Zarrinabadi et al. 2019) or self-efficacy (Pietluch 2018; Pietluch 2021). At the other end of the spectrum, only a handful of studies have attempted to put the potential of the construct into practice. In his study conducted on 25 Japanese undergraduates, Watkins (2016) succeeded in inducing SF-like engagement through the application of a curriculum that targeted the core constituents of the construct. The intervention study carried out by Garcia-Pinar (2020) on four undergraduates indicated that personally fulfilling and clearly defined group projects have the potential to inspire SFs. Finally, Pietluch (2021) attempted to induce real-time SF experiences among 16 adult EFL learners, and the outcomes of the project corroborated the assumption that imbuing an SF-centred curriculum with efficacy-building techniques may increase the likelihood of SF emergence.

Despite the formerly mentioned investigative efforts, the research on SF experiences is still in its infancy, and some essential facets of the phenomenon remain severely understudied. One of such potential research avenues pertains to the nature of the affect experienced while in the flow. As the promise of overall positive emotionality is one of the core constituents of the construct (Dörnyei et al. 2014), SF experiences were primarily portrayed in a positive light, with their rewarding consequences outweighing any potential side effects. Regardless of this tendency to look at SFs through rose-coloured glasses and the fact that those experiencing the phenomenon usually recall their experiences in a rather positive manner, some research projects, although not always directly, suggested that functioning within the SF zone may entail the risk of being exposed to a whole spectrum of negative affective consequences. For instance, Ibrahim (2016) found that the lack of satisfactory progress en route to one's desired accomplishment may trigger temporary feelings of frustration and boredom. More severe instances of negative affect can be found in the study conducted by Muir (2020), who reported that some of those affected by the phenomenon were strongly unwilling to undergo a similar experience in the future due to the presence of subversive consequences such as stress, anxiety, and even depression. Furthermore, in the only study to date with a focus on the negative side effects of SF experiences, Sak and Gurbuz (2022) found that while experiencing the phenomenon, individuals are prone to feelings of inadequacy, mental distress, and sorrow. Considering the studies to date have focused primarily on positive affective patterns within SF (Ibrahim 2016, 2020), the following research questions were set out for the present investigation:

RQ1: Is positive emotionality indeed the only type of affect experienced by those undergoing the SF phenomenon?

RQ2: What are the sources of negative affect within SF?

3. Method

3.1. Participants and sampling

A call for participants was issued on several social media groups for language learning enthusiasts to compose a research sample for the present study; the hope was that reaching a more diversified audience would contribute to obtaining more in-depth insights on the nature of negative affect while experiencing the phenomenon under scrutiny here. During the study, demographic data of the respondents were collected. A total of 163 submissions were received (female: 94, 57.67%; male: 69, 42.33%), and the participants ranged in age from 19 to 64 ($M=27.33$; $SD=4.36$). In terms of the respondents' nationality, 132 were Polish (80.98%), 11 were Ukrainian (6.75%), 7 were German (4.29%), 6 were English (3.68%), 4 were Slovakian (2.45%), 2 were Czech (1.23%), and a single respondent indicated Estonia as his home country (0.62%). In terms of language learning experience,

18 respondents indicated that they had been studying an FL for less than three years (11.04%), 111 (68.1%) for three to five years, 26 (15.95%) for six to ten years, and 8 (4.91%) for more than ten years. The vast majority indicated English as their desired L2 (n=146, 89.57%). The remaining participants had been learning Polish (n=8, 4.91%), Spanish (n=6, 3.68%), and Italian (n=3, 1.84%). None of the respondents disclosed learning two or more languages at the time of their motivational experiences.

The questionnaire data were collected in an online format between February and April 2022 using the *DMC Disposition Scale* elaborated by Muir (2016) (see below). The scale was adapted to Google Forms and distributed to the participants' personal e-mail addresses. The methodology and aims of the study were explained in an introductory section of the survey. While responding to the questionnaire items, the participants were requested to focus on the periods of intense motivational engagement based in an educational context, preferably that of foreign language learning. An exemplary account of such an occurrence was also shared with the respondents (a person who developed communicative proficiency in Spanish over a short period of time to participate in a work-related training scheme). Importantly, the background information on the construct was limited to avoid the risk of leading the respondents to describe occurrences that would imitate SF. Following the collection phase, the dataset was screened to identify fully-fledged SF experiences based on the theoretical model elaborated by Dörnyei et al.⁴ (2014). Additionally, as some accounts required clarification, follow-up email requests were sent to the respondents. Out of 163 submissions, 16 (female: 7, 43.75%; male: 9, 56.25%) SF accounts were identified.

In the qualitative phase, the 16 respondents who came forward were interviewed using online platforms (e.g., Skype, Zoom) on four separate occasions between March and June 2022. The interviews were conducted in English and lasted 40 minutes on average. Upon receiving the participants' consent, the interview sessions were recorded and transcribed verbatim. For the sake of confidentiality, the participants' names were changed. Written summaries were provided to the respondents to ensure the corresponding descriptions were factual.

Although SF experiences are primarily portrayed in a positive light, the analysis of the literature revealed that being caught up in the flow may also provoke adverse consequences (Ibrahim 2016; Muir 2020; Sak & Gurbuz 2022). Considering moderate negative affect may favour accomplishment by encouraging individuals to intensify their efforts (Strack & Esteves 2014), the decision was made to put the focus on episodes of significant

4 Although the original model proposed by Dörnyei et al. (2014) has been criticised, and the core constituents of SF still require further investigation, it remains the main reference point for distinguishing between SFs and standard cases of motivated behaviour (e.g., Başöz & Gümüş 2022; Sak & Gurbuz 2022).

severity. Consequently, the interview data were screened to discard the accounts where negative stimulation was only temporary and did not impair the self-reported life quality of those affected (in total, 9 participants reported experiencing moderate negative emotional stimulation). On this basis, four accounts were qualified for further analysis (female: one, 25%; male: three, 75%).

3.2. Instrumentation

3.2.1. DMC Disposition Scale

To identify potential SF cases for further qualitative analysis, the *DMC Disposition Scale* developed by Muir (2016) was used. The scale consists of 12 items arranged on a 5-point Likert continuum, with the possible answers ranging from 1 (strongly disagree) to 5 (strongly agree). As each item in the instrument is descriptive of a particular facet of the phenomenon, the tool allows for relatively straightforward identification of SF accounts. At the same time, the inclusion of open-ended questions enables a researcher to gain in-depth insights into individual experiences. The questionnaire offers high internal consistency (with Cronbach's alpha of 0.84); considering the novel context of the present investigation, the internal consistency of the instrument was assessed and rendered a score of 0.89.

3.2.2. Semi-structured interviews

In-depth insights regarding the participants' experiences were collected through a semi-structured interview protocol designed for the present study. During the interview sessions, the respondents were requested to narrate their exceptionally intense learning experiences. In addition to the questions incorporated in the interview protocol (see Appendix A), a typical interview would also involve some follow-up questions to elicit the essence of each experience. The additional questions were primarily concerned with the respondents' affective states. As participating in an interview may generate tension and anxiety, a typical session would also involve several probing questions.

3.3. Procedure

As the novel context of the present study necessitated more elaborate interpretations, it was decided that inductive thematic analysis would best suit the purpose of the research. Nowell et al. (2017) indicated that in such an approach, an analysis does not concentrate on seeking evidence to validate some preconceived themes, but rather the themes are determined by the dataset. Consequently, the entire dataset was read several times so that a better comprehension of individual experiences could be developed, and a descriptive account was produced for each experience. In the next step, the essential aspects of the accounts were highlighted with different colours, providing the researcher with an

overview of common meanings present in the dataset (Braun & Clarke 2006). The extract below illustrates the procedure:

Table 1. Codes-sample

Interview extract:	Codes:
<p>When I wasn't writing, I would spend hours looking for thesis resources or just reading forums with people sharing their PhD experiences. It was all a part of my process. I would easily spend at least 10 hours a day working towards achieving my dream, including weekends. It was so much fun! My husband was very supportive, especially at the beginning. He took care of everyday things like shopping, walking our dogs, cooking, etc.</p>	<ul style="list-style-type: none"> • Unnecessary routine • Excessive time investment • Giving up typical routines

The labels were then reviewed to ensure they represented the dominant patterns in the data (Ibrahim 2017). Codes which were deemed unclear or overlapping were discarded. Two primary measures were employed to enhance the credibility of the study; in addition to providing the respondents with written summaries of their accounts, an external audit was conducted, and an expert in the field was requested to verify the veracity of the procedure and the corresponding interpretations. Both coding procedures yielded similar results; minor name alterations proposed by the auditor were discussed and then implemented by the author.

4. Results and discussion

Following the data analysis, the negative affect experienced by the participants was linked to three distinctive sources: (i) *preoccupation beyond SF requirements*, with participants exerting more effort than necessitated by the nature of their SFs; (ii) *inner coercion to perform SF routines*, with individuals struggling with the lack of balance between their SFs and other life engagements; and finally, (iii) a *prolonged sense of loss*, with individuals being unable to resume their normal lives due to the intensity of their experiences.

4.1. Preoccupation beyond SF requirements

Efforts of those affected by the SF phenomenon are constantly aligned towards goal-achievement, and to increase the odds of reaching their desired objectives, individuals experiencing SF are believed to intuitively avoid engagement in other, non-relevant activities (Dörnyei et al. 2014). The analysis revealed that such engrossment, although beneficial for producing significant accomplishments, may also push individuals to produce more effort than necessitated by their SFs and, in consequence, provoke negative affect. Take, for instance, the case of Kamila (female, 28, Polish), who experienced her SF in the final year of MA studies:

Kamila: I wanted to enrol in a PhD programme, so I had to study twice as hard, attend conferences, and publish papers. When I wasn't writing, I would spend hours looking for thesis resources or just reading forums with people sharing their PhD experiences. It was all part of my process. I would easily spend at least 10 hours a day working towards achieving my dream, including weekends. It was so much fun! My husband was very supportive, especially at the beginning. He took care of everyday things like shopping, walking our dogs, cooking, etc.

Interviewer: Only at the beginning?

Kamila: It must have been very hard for him. I was always busy with my goal, so we stopped seeing our friends or doing things together. We would have terrible fights about this, but for a long time, I couldn't stop. I felt incredibly guilty for letting him down, but it was my dream, you know?

Interviewer: So when did things change?

Kamila: When he mentioned divorcing me for the first time. I was devastated, and it was a tipping point for me, I think. It took us months to work things out, and I had to give up my PhD aspirations. I was proud of my academic life, and every little success gave me extreme happiness, but it felt like it was too big of a sacrifice.

Although SF-centred routines consumed most of the respondent's time, each minor accomplishment would bring her a sense of joy, suggesting that she indeed experienced positive emotionality typical for the phenomenon. Ibrahim (2020: 9) indicated that, while in the flow, "effort loses its traditional connotation, and self-regulatory measures become unnecessary, allowing individuals to invest the maximum effort towards their desired attainments". However, it can be inferred from the above account that the lack of such self-regulatory mechanisms may also backfire, causing individuals to overestimate the amount of effort required to match the demands of their SFs. Whereas experiencing SF would most typically involve the development of new, goal-conducive routines, not all the activities the participant had so eagerly embraced (e.g., reading forums about PhD experiences) were absolutely necessary for a fruitful completion of her SF. The excessive preoccupation led the participant to completely neglect other life aspects, and the corresponding decline in the quality of her marriage provoked negative affect and rendered the entire experience much less satisfying. This coincides with the findings of Sak and Gurbuz (2022), who indicated that such an excessive and prolonged dedication towards goal achievement may provoke feelings of sorrow due to continuous neglect of one's significant others and other desirable activities. Notably, Kamila's SF experience ebbed

away not as a result of reaching her ultimate goal but rather as a conscious decision made by the respondent. It could be concluded therefore that negative affect while experiencing the flow may have a bearing on whether SFs are promoted or inhibited. Accounts of similar excessive preoccupation are present in the relevant literature (Muir 2016; Ibrahim 2020).

Just like individual SF experiences vary in strength, focus, or duration, it seems those affected also display various degrees of readiness to recognise the detrimental impact of their SFs on other life domains. Unlike the previous respondent, who was well aware of the negative consequences throughout her experience, another participant mentioned that he had not experienced any negative affect until his SF began to dissipate. Grzegorz (24, male, Polish) was offered a job in an Italian branch of his company, and to complete the transition to this new role he was obliged to improve his command of the language. This obligation soon evolved into his favourite occupation, enabling the launch of his SF experience. When asked about how this newly found passion changed his life, the participant commented:

Grzegorz: I would normally spend plenty of time with my friends; we used to hang out almost every day. That summer was totally different, though. After the classes, I spent hours studying on my own, watching videos in Italian, or just searching for additional materials. I was so proud of myself for doing more than other people on my course. I would stay up late every day, and even though it was difficult to wake up in the morning, I loved every minute of it. I fell in love with the language!

Interviewer: You mentioned your friends. Did you have the time to see them?

Grzegorz: Not really, no. They would often invite me for their birthdays, barbeques, and other occasions, but I would make silly excuses not to go. Back then, it felt as if they were standing in my way. I couldn't be bothered to check in with them, I was busy studying Italian. Their calls and texts were just distracting me, so I ignored them most of the time.

When asked about his willingness to experience SF in the future, the participant commented:

Grzegorz: I don't think I would. I managed to make up with some of my friends, but others haven't spoken to me ever since that summer. I got what I wanted, but it wasn't worth it if you ask me.

The participant's affective obsession with his new passion was intense indeed. Many of the language learning routines he developed were not necessitated by the course

requirements, and although these were undoubtedly beneficial for his language proficiency, they successfully overshadowed other life aspects that the respondent would consider essential prior to his SF experience. Contrary to the formerly discussed account, the respondent did not struggle with prioritising his SF, which partially explains why positive emotionality was the dominant affective pattern throughout his experience. Yet, his approach towards his significant others is somewhat surprising. Challenging and longitudinal undertakings are bound to provoke mental and physical exhaustion, and it is not uncommon for those experiencing the SF phenomenon to seek support and consolation in their friends and families (Pietluch 2021). In stark contrast, not only was the respondent uninterested in seeking external support while his experience lasted, but also he perceived others as adversaries separating him from reaching his ultimate goal. This observation is in line with the findings of Ibrahim (2016), who suggested that individuals affected by SF may perceive other life engagements, including the time spent with family, as barriers separating them from goal-accomplishment. While resuming most pre-SF routines would be seemingly straightforward and effortless, the above account seems to suggest that, in some cases, the potential long-term costs of such motivational endeavours may outweigh the value individuals assign to their accomplishments. This, in turn, may have a bearing on whether individuals would seek to pursue similar goals in the future. Similar conclusions were reached in the recent study by Sak and Gurbuz (2022).

4.2. Inner coercion to perform SF routines

Much of the facilitative power of SF stems from the fact that it enables individuals to pursue long-desired objectives, giving rise to unique feelings of self-fulfilment and growth. On top of focusing their energies on performing SF-conducive tasks, those affected are most typically characterised by a constant mental, emotional, and cognitive preoccupation with their SFs (Ibrahim 2020). While this unceasing link unquestionably supports individuals in sustaining their goal-directed efforts, the analysis revealed that it may also evolve into inner coercion to perform SF-related routines. Robert's (32, male, German) SF emerged in the final year of his PhD studies, and while pursuing his doctoral degree he was simultaneously working in a 24/7 environment. When asked about how he had been coping with such a demanding lifestyle, he commented:

Robert: I can't say I was coping, really. I was totally drained, and yet I couldn't rest. Don't get me wrong, I dreamt about getting a good night's sleep or going out with my friends. But whenever I was not working on my thesis, my thoughts were racing, and I felt guilty. I would review my thesis over and over again. My supervisor kept telling me I was doing great, but I was never satisfied with myself. It was especially bad when I was working nights.

Interviewer: What do you mean?

Robert: After a night shift, I would normally sleep for two or three hours and then I would push myself to work on my thesis. I was barely standing afterwards, but it was better than being angry at myself for not working on my dissertation. I constantly felt the pressure to work, especially while I was supposed to rest. I was a complete mess!

Interviewer: Was it like that all the time?

Robert: Actually, I don't know when I stopped enjoying my PhD. I mean, the first two years were great. Looking back, this obsession was absolutely unnecessary. I mean, for a short time, I was more productive, but I can't say I was happier.

The nature of Robert's engagement was qualitatively different to the formerly discussed accounts; whereas the all-present preoccupation of other participants stemmed from a sincere desire to stay connected with their goals, the respondent, except for the onset of his experience, reported feeling internally pressurised to concentrate on his thesis. Pietluch (2021) indicated that while in SF, actions conducive to one's desired accomplishment enter a person's daily repertoire to the extent that the lack of possibility to perform them may evoke feelings of discomfort or guilt. Based on the above account, it is possible to conclude that this otherwise favourable urge to concentrate on one's desired pursuit may also occasionally assume a debilitating role. It seems much of the negative affect the participant experienced resulted from the respondent's inability to maintain a healthy balance between his SF and other life engagements. More specifically, the internal pressure the participant had been experiencing while his actions were not SF-conducive led him to impose limitations on other fundamental life aspects. This constant clash, in turn, led to a significant decline in his perceived life quality, which stands in stark contrast with the promise of positive emotionality that permeates an SF experience (Dörnyei et al. 2014). Additionally, even though Robert's SF experience initially displayed all the core characteristics of the construct, including progress markers and goal-centred routines, the participant was unable to fully savour his progress and reported being constantly dissatisfied with his performance. This, in combination with the constant internal pressure he had been experiencing, caused the respondent's SF to cease prematurely. Thus, it may be tentatively assumed that while structural properties of the phenomenon support individuals in sustaining their dedication, a fruitful completion of an SF experience may require some additional measures that would allow individuals to adapt their lives to the requirements of these atypically demanding and longitudinal motivational undertakings.

4.3. Prolonged sense of loss

Functioning within the SF zone may constitute a significant challenge on both mental and physical levels, and although ruminative thoughts and fatigue are not uncommon throughout the experience, the rewarding consequences of the phenomenon are believed to outweigh any potential side effects (Dörnyei et al. 2014; Henry et al. 2015). While this may be the case for the majority of SF experiences, one of the accounts suggested that the adverse consequences of prolonged engagement may not be limited to the SF lifespan. Endrik (25, male, Estonian) experienced his SF while simultaneously pursuing two degrees. Positive emotionality was the dominant affective pattern throughout his SF, and the participant recalls the experience itself in a rather positive manner:

Endrik: It was intense, I had never experienced something like that before. I was doing two different degrees, so I barely had the time to do anything else. I was proud of myself, though. Of course, it wasn't easy—I had to give up some of my daily routines, and I would see my family rarely. I have never felt so great about myself, though, and I thought it was worth it at the time.

Interviewer: Could you please elaborate?

Endrik: I was really tired while it lasted, but it was normal, I think. It got much worse after I completed my degrees. It may sound weird, but at that time my life finally had some meaning. It felt like I was in the right place at the right time. So when I finished my degrees, it left this giant hole in my life. I was constantly obsessed with doing something meaningful. Instead of taking the time to catch up with my friends or do something pleasant, I felt this strong urge to do something productive, something that would make me feel good about myself again. This drove me crazy! I was so obsessed with finding a new goal that I started having panic attacks.

I: And how did you cope?

Endrik: After a few months, I saw a specialist, and I've been taking anti-anxiety meds ever since.

Ibrahim (2020) indicated that experiencing the SF phenomenon most typically involves continuous cognitive, mental, and emotional engagement. While in the previously analysed extracts individuals would experience negative affect stemming from excessive preoccupation throughout their SF journeys, with individual accounts varying as to the extent to which those affected were capable of recognising the detrimental consequences of prolonged engagement, the above account leads us to believe that negative side

effects of such immoderate determination to pursue one's long sought after objective may also manifest themselves after the experience ceases to exist. More specifically, the respondent disclosed that following the completion of his SF, he developed somewhat of an obsession towards finding a new objective that would once again provide him with a sense of purpose. Considering the nature of engagement within SF and the fact that even minor deviations from the SF trajectory may provoke mental distress (Sak & Gurbuz 2022), it comes as no real surprise that individuals may initially consider their post-SF lives as purposeless. This observation coincides with the findings of Henry et al. (2015), who indicated that not every SF will gradually ebb away as an experience nears its completion, allowing individuals to systematically resume their typical pre-SF routines. Whereas it may be hypothesised that most of those experiencing SFs will be quick to adjust by drawing on the sense of accomplishment, it seems that an abrupt end to a phenomenon of such intensity may render some individuals prone to experiencing a prolonged sense of loss. Although the reasons for this inability to resume normal life require further investigative work, the above account appears to suggest that this otherwise favourable inclination towards engagement may also have some long-lasting negative consequences.

5. Conclusions, limitations, and future research avenues

The positive emotionality that spreads throughout an experience is one of the most striking characteristics of the SF phenomenon; while in the flow, the actions of those affected are channelled towards the accomplishment of long-desired objectives, which gives rise to feelings of self-concordance and satisfaction (Ibrahim 2016). However, a closer analysis of the former studies indicated that this unremitting sense of fulfilment may not be the only affective pattern associated with the flow, and functioning within the SF zone may entail the risk of being exposed to a whole spectrum of negative consequences, including frustration, mental distress, anxiety, or even depression (Ibrahim 2016; Muir 2020; Sak & Gurbuz 2022). The results of the present investigation seem to provide further confirmatory evidence for this observation. Even though the SF experiences of the respondents varied in their focus, what all these accounts had in common was the significant decline in life quality provoked by the phenomenon under scrutiny here. Additionally, it was found that experiencing negative affect while in SF may cause some experiences to cease prematurely. Despite the fact that the frequency of detrimental affect within the SF zone is relatively low, its potential adverse consequences should not be underestimated, and any attempts to purposefully induce SFs should be approached with caution. Thus, prospective studies researching negative emotionality associated with experiencing SF could concentrate on developing a set of counteractive measures that would maximise the benefits of the phenomenon and, at the same time, limit the occurrence of potential side effects.

As far as the sources of negative affect are concerned, the negative emotional states of the respondents were linked to three distinctive sources, namely preoccupation beyond SF requirements, inner coercion to perform SF routines, and a prolonged sense of loss. To open with the first theme, it was concluded that the ability to pursue one's long-desired objective and the corresponding injection of motivational energy may lead to overt effort expenditure, frequently at the expense of other essential life aspects. Although the literature on SFs abounds with examples of individuals temporarily sacrificing typical routines to match the requirements of their pursuits (Henry et al. 2015; Ibrahim 2016, 2020; Sak & Gurbuz 2022), a typical SF experience does not usually connote the complete neglect of other life domains. This was the case for two of the participants, who, in their efforts to stay connected with newly found callings, consciously eliminated their regular routines instead of adapting their lifestyles to accommodate more time for their desired attainments. While focusing one's energies on a highly desired goal may increase the odds of accomplishment, the participants of the study were severely underperforming in other domains, which, in the long run, provoked a substantial amount of negative affect.

Those experiencing the SF phenomenon are mentally and affectively consumed by their experiences (Ibrahim 2020). While such an all-present willingness to stay connected to one's desired pursuit would most typically favour accomplishment, the analysis revealed it may also occasionally evolve into inner coercion to perform SF routines. As individuals struggle with maintaining a healthy balance between their SFs and other life engagements, they are unable to access the positive emotionality typical for the phenomenon. This, in turn, may cause some SF experiences to cease prematurely. Despite the fact that the literature on SFs consistently reports the existence of a salient, facilitative structure that aids individuals in maintaining their efforts (Dörnyei et al. 2014; Safdari & Maftoon 2017), a recent systematic review carried out by Jahedizadeh and Al-Hoorie (2021) indicated that the lack of such a structure may not necessarily rule out the existence of the phenomenon. Similarly, it was concluded that accomplishing SF objectives may require some additional, supportive measures that would allow for more effective incorporation of novel routines. In fact, the outcomes of the present research lead us to believe that the structural properties of SF should be reconsidered, and most definitely require further investigation.

Finally, it transpires that some of the negative consequences of SF may significantly exceed the lifespan of the flow. As SF experiences are atypically intense, it is not at all surprising that following their completion, individuals may experience feelings of emptiness or even a temporary sense of loss. While most of those affected by the phenomenon would be quick to overcome potential ruminative thoughts by tapping into the joy of accomplishment and resuming their pre-SF routines, the data gathered in the present research suggest that some individuals may experience acute difficulties adjusting to the post-SF reality despite a fruitful completion of their SF experiences. Henry et al. (2015:8)

indicated that while experiencing an SF “a totality of one’s effort is directed to one’s desired achievement so that it is not unusual thereafter that individuals may feel both mentally and physically drained and take time to adjust back to the everyday routine governing their lives before the SF was initiated”. Although it is not exactly apparent why some individuals may be more prone than others to experiencing long-term consequences of prolonged effort, it can be tentatively assumed that this inability to resume one’s normal life may stem from the very intensity of the motivational phenomenon. The acclaim SF experiences have gathered in recent years stems from their unique capacity to transform the way individuals function on cognitive, mental, and emotional levels (Dörnyei et al. 2014). With this in mind, it is not unreasonable to assume that an abrupt shift in the way individuals utilise their personal resources may provoke some adverse consequences. While this matter most definitely requires further investigation, it seems that the otherwise favourable potency of SFs may also assume a debilitating role and overshadow any potential benefits experiencing the phenomenon may yield. Additionally, while the relevant literature abounds with studies researching the conditions necessary for the emergence of an SF experience (Henry et al. 2015; Ibrahim 2017; Safdari & Maftoon 2017; Zarrinabadi & Tavakoli 2017; Başöz & Gümüş 2022), surprisingly little is known about how these experiences come to an end. As such knowledge could potentially contribute toward reducing long-lasting side effects of SFs, it should be postulated that this aspect of the phenomenon receives adequate attention.

Although experiencing the SF phenomenon may support individuals in producing outstanding achievements, the presence of negative side effects identified by the present study and former research endeavours (Ibrahim 2016; Muir 2020; Sak & Gurbuz 2022) renders attempts to consciously induce SF experiences ethically questionable. While the vast majority of SF cases emerge spontaneously rather than as a result of deliberate instruction, any attempt to induce SFs in a classroom setting should be executed with caution until we develop a better understanding of both temporary and long-term consequences of the phenomenon at hand. As functional counteractive measures are yet to be developed, it seems that much of the negative affect experienced by the respondents stemmed from the excessive preoccupation with their flow experiences and the lack of proper self-regulation mechanisms. Therefore, one practical recommendation to be put forward here is that efforts to purposefully generate SFs should involve careful planning that would ensure that those affected incorporate SF-conducive tasks into their lifestyles without the need to sacrifice other essential life domains. Additionally, as the efforts of those pursuing significant accomplishments are typically divided in time, the achievement of SF objectives should not be any different. Bearing in mind that potential side effects of SFs remain largely unknown, guiding students in adequate goal selection and progress assessment may ensure that they maintain a healthy balance and, consequently, contribute to the longevity of potential SF experiences.

The present study is not without its limitations. Firstly, the small size of the sample included in the present analysis may have a bearing on the generalisability of the results. Thus, further studies are required to verify whether the findings could be extrapolated to other contexts. Secondly, the present investigation focused on major manifestations of negative affect while experiencing SF. As negative affect in SF experiences is not as uncommon as previously thought, prospective studies could also analyse minor negative episodes typical for the phenomenon at hand, preferably on a more numerous sample. The potential insights could then be used to develop a set of counteracting measures that would be of extreme help for practitioners aiming to induce SFs, for instance, in a classroom setting.

References

- Başöz, T., & Gümüş, Ö. 2022. Directed Motivational Currents in L2: A focus on triggering factors, initial conditions, and (non)defining features. *System* 110: 1–13. <https://doi.org/10.1016/j.system.2022.102920>
- Braun, V., & Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3: 77–101. <http://dx.doi.org/10.1191/1478088706qp0630a>
- Cox, R. 2012. *Sports Psychology: Concepts and Applications*. New York: McGraw-Hill.
- Csikszentmihalyi, M. 1990. *Flow: The Psychology of Optimal Experience*. New York: Harper & Row.
- Dörnyei, Z., & Schmidt, R. 2001. *Motivation and Second Language Acquisition*. Honolulu: Second Language Teaching and Curriculum Centre.
- Dörnyei, Z., Muir, Ch., & Ibrahim, Z. 2014. Directed motivational currents. Energising language learning by creating intense motivational pathways. In: D. Lasagabaster, A. Doiz, & M. Sierra (eds.), *Motivation and Foreign Language Learning. From Theory to Practice*, 9–22. Amsterdam: John Benjamins Publishing Company.
- Dörnyei, Z., Henry, A., & Muir, Ch. 2016. *Motivational Currents in Language Learning: Frameworks for Focused Interventions*. New York: Routledge.
- Garcia-Pinar, A. 2020. Group directed motivational currents: Transporting undergraduates toward highly valued end goals. *The Language Learning Journal* 1: 1–13. <https://doi.org/10.1080/09571736.2020.1858144>
- Ghanizadeh, A., & Jahedizadeh, S. 2017. Directed motivational currents: The implementation of the dynamic web-based Persian scale among Iranian EFL learners. *Journal of Teaching Language Skills* 36: 27–56. <https://dx.doi.org/10.22099/jtlls.2017.23952.2159>
- Henry, A., Davydenko, S., & Dörnyei, Z. 2015. The anatomy of directed motivational currents: Exploring intense and enduring periods of L2 motivation. *The Modern Language Journal* 99: 329–345. <http://dx.doi.org/10.1111/modl.12214>
- Ibrahim, Z. 2016. Affect in directed motivational currents: Positive emotionality in long-term L2 engagement. In: P.D. MacIntyre, T. Gregersen, & S. Mercer (eds.),

- Positive Psychology in SLA*, 258–281. Bristol: Multilingual Matters. <http://dx.doi.org/10.21832/9781783095360-012>
- Ibrahim, Z. 2017. Parameters inducing motivational surges in second language learning. *UKH Journal of Social Sciences* 1: 24–33. <http://doi.org/10.25079/ukhjs.v1n1y2017>
- Ibrahim, Z., & Al-Hoorie, A. 2018. Shared, sustained flow: Triggering motivation with collaborative projects. *ELT Journal* 73: 51–60. <http://dx.doi.org/10.1093/elt/ccy025>
- Ibrahim, Z. 2020. Sustained flow: Affective obsession in second language learning. *Frontiers in Psychology* 10: 1–13. <https://doi.org/10.3389/fpsyg.2019.02963>
- Jahedizadeh, S., & Al-Hoorie, A. 2021. Directed motivational currents: A systematic review. *Studies in Second Language Learning and Teaching* 11(4): 517–541. <https://doi.org/10.14746/ssllt.2021.11.4.3>
- Muir, Ch. 2016. *The Dynamics of Intense Long-Term Motivation in Language Learning: Directed Motivational Currents in Theory and Practice* [PhD thesis]. University of Nottingham, England.
- Muir, Ch. 2020. *Directed Motivational Currents and Language Education: Exploring Implications for Pedagogy*. Bristol: Multilingual Matters.
- Muir, Ch., & Gümüş, O. 2020. Directed motivational currents: An agenda for future research. *Eurasian Journal of Applied Linguistics* 6(3): 501–519. <https://doi.org/10.32601/ejal.834661>
- Nowell, L., Norris, J., White, D., & Moules, N. 2017. Thematic analysis: Striving to meet the trustworthiness criteria. *The International Journal of Qualitative Methods* 16: 1–13. <https://doi.org/10.1177%2F1609406917733847>
- Pietluch, A. 2018. Extraordinary motivation or a high sense of personal agency: The role of self-efficacy in the directed motivational currents theory. *New Horizons in English Studies* 3(1): 45–56. <http://dx.doi.org/10.17951/nh.2018.3.45>
- Pietluch, A. 2021. *Energising Directed Motivational Currents Through Learners' Agency*. Berlin: Peter Lang GmbH.
- Pietluch, A. 2022. How to keep the current flowing? Factors contributing to the longevity of directed motivational currents. *Porta Linguarum* 38: 229–246. <https://doi.org/10.30827/portalin.vi38.23596>
- Safdari, S., & Maftoon, P. 2017. The rise and fall of directed motivational currents: A case study. *The Journal of Language Learning and Teaching* 7(1): 43–54.
- Sak, M. 2020. *A Case Study on the Parameters Underlying Patterns of Change in Directed Motivational Currents* [MA thesis]. Hacettepe University, Turkey.
- Sak, M., & Gurbuz, N. 2022. Unpacking the negative side-effects of directed motivational currents in L2: An interpretative phenomenological analysis. *Language Teaching Research*: 1–20. <https://doi.org/10.1177/136216882211259>
- Selçuk, Ö., & Erten, I. H. 2017. A display of patterns of change in learners' motivation: Dynamics perspective. *Research on Youth and Language* 11(2): 128–141.

- Strack, J., & Esteves, F. 2014. Exams? Why worry? The relationship between interpreting anxiety as facilitative, stress appraisals, emotional exhaustion, and academic performance. *Anxiety, Stress, and Coping* 28(2): 1–21. <http://dx.doi.org/10.1080/10615806.2014.931942>
- Watkins, J. 2016. Planning a curriculum to stimulate directed motivational currents (DMCs). *Kwansei Gakuin University Repository* 19: 59–73.
- Zarrinabadi, N., & Tavakoli, M. 2017. Exploring motivational surges among Iranian EFL teacher trainees: Directed motivational currents in focus. *TESOL Quarterly* 51: 155–166. <https://doi.org/10.1002/tesq.332>
- Zarrinabadi, N., Ketabi, S., & Tavakoli, M. (2019). *Directed Motivational Currents in L2: Exploring the Effects on Self and Communication*. Cham: Springer.

Appendix – Interview protocol

1. Can you describe your motivational experience?
2. How and when did it start?
3. What did you do to accomplish your goal?
4. How did you feel during the experience?
5. Was your motivation steady throughout the experience?
6. What did the experience change in your life?
7. Were there any problems?
8. How did you cope with difficulties?
9. Did you have any support?
10. Would you like to experience something similar once again?

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