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Procrastination as a Form of Misregulation in the Context of Affect and Self-Regulation

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Abstract: This article aims in situating procrastination, as a specific form of affect regulation failure in context of general affect and self-regulation literature. This will be brought starting with definition of the phenomenon and its' various forms and perspectives. Next, giving an insight into affect regulation literature. In the third step we will focus on elaborating the picture of procrastination and its' underlying mechanisms in order to locate it in a broader domain of affect regulation as a specific form of self-regulatory lapse. A commentary regarding dealing with procrastination and effective affect regulation will be provided.
Keywords: affect regulation, self-regulation, procrastination.

1. Foreword

Work self-efficacy is a fundamental component of functioning inside the modern western culture. As a result of finished motivation cycle [1, 2, 3], together with different forms of self-regulation, like keeping a healthy diet, refraining from drugs or resolving conflicts without violence, contributes to subjective well-being. Whereas auto-regulatory processes, like regulation of heart rate or breathing, that don't demand consciousness, are common among living creatures, only humans are capable of exerting conscious, effortful control on their behaviour in order to reach significant goals [4]. The dependence of self-regulation on mental processes explains the interest of psychological research in this domain. One could wonder if the strength of the interest hasn't corresponded to human weakness in exerting self-control over oneself.

The aim of this article is to present procrastination as one of faulty self – regulation mechanisms, that weakens self-efficacy. Specifically, it is argued that stalling behaviour results from prioritizing present affect, regardless of threat to significant goals and well being. Since multitasking and fragile self-control breed procrastination, it most often occurs among young professionals and students. Even though procrastination screening rates in samples of American

university and college students vary between reports, they show that stalling behaviour is a pervasive problem in those population, reaching the level from 70% [5], up to 80 – 95% [6, 7] of students reporting to procrastinate at least in some points in time during their education, as compared with 15-25% of general population [7]. Research on procrastination from other culture, like South Korea [8], Nigeria [9] and Poland [10] indicate that this problem isn't restricted to American sample. This is why work and academic environments are most often a focus psychological investigation into procrastination [for example: 11, 12, 13, 5, 8].

2. What is Procrastination?

In various research procrastination is defined as postponing an intended action to future date [14], neglecting to attend to necessary responsibilities in timely fashion, despite intention to fulfil them and awareness of unpleasant consequences of such a postponement [7], putting tasks off despite expecting to be worse off because of that [15]. Another commentary that adds to understanding of the phenomenon, limited to academic environment, states that stalling behaviour is self-reported tendency to nearly always or always put off academic tasks and nearly always or always experience problematic level of anxiety associated with this procrastination [16]. Definitions reveal various factors that demand consideration in work on procrastination, namely its' behavioural (inaction), cognitive (consequence awareness) and emotional (distress) components. Another component explicitly or implicitly present in the definitions is temporal aspect of the phenomenon, that focus on present, associated with lack of task performance, and future, associated with action and task performance. To exemplify the case: a student who sits down to homework assignment, but instead of opening a textbook, decides to watch "just one" episode of his favourite TV show, and do the task "just after that", then starts feeling nervousness nearing the end of the episode after remembering he promised to help father repair the sink in the kitchen the same evening, and comprehension he won't manage both tasks before bedtime because of the unnecessary delay of assignment performance, isn't just chilling out, but procrastinating. Procrastination may be a problem in various domains of life, concerning, apart from academic tasks, professional duties, house chores and interpersonal relationships.

Multiple frameworks show that procrastination isn't a homogenous phenomenon, as it brings different forms. Chu and Choi [12] propose to distinguish between passive and active form of procrastination. In their conceptualisation passive procrastinators don't intend to postpone their actions but end up stalling after spending too much time on making decisions and initiating actions. When deadline gets closer pressure starts to take its' toll on their task completion attitude, eliciting doubts about their ability to finish it. In the same time active procrastinators deliberately don't initiate action on planned project straight away. Having plan to complete it in mind, they focus on other activities in immediate time perspective and become mobilised by planned project's deadline approaching [12]. Another distinction highlighted in literature focus on subject of procrastination, which can affect task completion directly through action postponement or indirectly through delay in decision making process [17]. In regard to cross-situational stability of the phenomenon, procrastination is a subject of scientific attention both as an occasional occurrence [7] and as a stable disposition [18]. Multifaceted nature of procrastination indicate that the phenomenon requires to be placed in broader framework of self-regulation.

3. Gross' Model of Affect Regulation

Various forms of self-regulation involve: impulse, emotions, desires, performances and different behaviours regulation [19]. Listing affect management as a type of self-regulation is frequent, however relies on simplified definition of emotion. Indeed, when understood as altering expression of one's emotional experience [4], emotional regulation can be considered as similar to other forms of self-control. However, modern research approach identifies three components of emotional episode: behavioural expression, subjective feeling and physiological arousal [20]. Management of

so understood affect is more interconnected and reliant on other forms of self-regulation (impulse, cognitions, goals management). However, despite established position of three componential definition of emotion, large body of affect-regulatory research focus on its' expression, overlooking subjective experience and physiological arousal.

To both compliment the gap and organize various forms of affective states management Gross [21] formulated a process model of emotional regulation. In this process model, emotional regulation is understood as a mechanism in which an individual influences which emotions they have, when and how they experience and express them [22]. Regarding temporal aspect of emotional episodes people tend to regulate them, when they are not satisfied with duration or frequency of such experiences [23]. Organisation of emotional regulation strategies is embedded in generative process of emotion elicitation, starting from situation selection (1), through situation modification (2), attentional deployment (3), cognitive change (4), up to response modulation (5) [24]. The phases of emotion arousal also group five families of affect regulatory strategies.

Consequently, in the first phase – situation selection – Gross [22, 24] distinguishes two kinds of behaviours: approaching and avoiding emotionally engaging situation, people or places. For example an individual can decide to walk home after work, fearing to meet a nasty co-worker on the bus, or take the bus on purpose of responding to their malicious comments and experiencing satisfaction. Situation modification – the second family of strategies - can take a form of problem-focused coping [25] when an individual puts effort into changing certain aspects of situation, which in turn influences reaction of the individual. In case of nasty co-worker, an honest conversation would be an example of problem-focused coping. Attentional deployment (3) involving such processes as distraction, concentration on positive and mindfulness, can also be conceptualized as internal situation selection. The employee could take the bus, but instead of engaging in conversation with the colleague focus on the music from the radio (distraction), notice it's nice to have someone to talk to (concentration on positive) or analyze their sensual experiences during the ride (mindfulness). Cognitive change (4) family of affect regulation strategies comprises, among others, challenge, instead of threat, appraisal, humour and downward social comparison. Their common feature is that an individual interprets the situation in a way that boost their perception of control over it or shows their beneficial position. Using downward social comparison strategy, the character from the example can tell themselves that they are better off having a nasty co-worker in comparison to unemployed, who neither have colleagues, nor job. In the chronologically last phase of emotion elicitation – response modulation (5) Gross [24] names venting, suppression, self-harm, substance use, food preoccupation, exercise and relaxation. They occur after the innate responses have been launched and are directed at modifying different emotional components, for example the employee may suppress expression of anger after some vicious co-worker remark, go for a drink to relieve muscle tension associated with physiological component of emotion or listen to favourite song to boost its' subjective feeling. Although abovementioned strategies function is mostly to boost affective state, some frameworks include perspective of social benefits resulting from its' worsening [26].

It is important to notice that regulation of subjective feeling and physiological arousal, that takes place in early stages of emotion generation influence its' expression, shaping bodily (facial, postural, gestural) signs of the experience, as well as temporarily direct, like fight, flight, freeze [27] and indirect behavioural, like compulsive gambling [28] manifestations of emotional arousal. This means that a conscious cognitive decision of avoiding some kind of situation with a direct consequence of feeling a relief, facing some kind of situations with immediate result of stress and mastering ability to cope with some stressors as a long term gain, altering thoughts about the situation (reappraisal, acceptance, humour) are all forms of affect regulation [23], [29]. They all, however, refer to different mechanisms, potentially influencing various affective states.

4. Adaptive and Maladaptive Aspects of Affect Regulation

Generally, studies show that actual [30], [31] and believed [32], [33] ability to regulate affective states contributes to physical and mental health and general well-being. However, not everyone is capable of regulating their affect successfully. Deriving from more general framework of self-regulation, problems with affect regulation (regulation failure) might take the form of underregulation, when an individual fails to carry the regulation process out, and misregulation – when an individual uses an inappropriate form of regulation [4]. An example of underregulation would be the aforementioned employer who, after getting annoyed by the colleague malicious remarks, puts on his favourite music album, but fails to listen to it through and get completely relaxed. Misregulation on the other hand could be portrayed by a situation in which the man decides to tell about the event his friend but feels unsatisfied with the friend's lack of misunderstanding and ends up feeling even more nervous.

A different approach to regulatory processes focus on flexibility of their application [34, 35, 36]. Cheng [36] defines coping flexibility simply as variability in coping. It is worth to notice, that term *coping* refers to dealing with external situations, what makes it a close relative of emotion, but not mood, regulation [see: 76, 77, for the difference between emotion episode and mood state] Bonnano and colleagues [35] studied two affect regulation strategies: enhancing and suppressing emotional expression, as well as adjustment in college among New York freshman college students directly after terrorists attacks of September 2001 and 18 months later. Greater flexibility of the two strategies application was associated with less distress experienced later in the study. Further understanding of successful adaptation to college was brought by Park and colleagues [37]. They studied three self - regulatory processes: constructive thinking, emotional regulation and mastery (sense of controllability over one's social and academic lives). Results indicated that the strongest predictor of freshmen's college students adjustment to new environment wasn't the initial level of regulatory abilities but their development over time. These findings give a notion of real processes behind life-span effective adjustment.

Even though affect regulation doesn't have to be necessarily a conscious, effortful process [see: 38 for implicit/automatic emotion regulation] it requires specific knowledge and ability to apply it in real-life situations. As any self-regulation process it consists of standards, monitoring and strength [4]. Standards stand for understanding of social norms operating in situations given, monitoring means consciousness of one's current behaviour and feeling state, while strength is an ability abstain from an automatic response (or state) and conform to desired one. More specific for affect regulation conditions involve awareness of emotions experienced and their context, goal of regulatory process (what exactly one wants to achieve) and strategies that define its' means [23]. Those components themselves, especially emotional awareness and strength to carry desired changes, together with distress tolerance are dispositions constituting individual differences of affect regulation ability [39, 40, 41].

Individual differences research approach to management of affective states refer to concept of emotional intelligence [42, 43, 24]. Salovey and Mayer [42] definition of emotional intelligence comprises four skills/abilities: (first) to perceive and recognize emotional expressions, (second) to take advantage of emotion for cognitive actions, like thinking, planning or problem solving, (third) to understand emotions, their dynamics and relationships between them, development of this capacity is closely related to emotional language comprehension, and (fourth) to manage one's own and others emotions. Explaining the concept of emotional intelligence authors argue further that it meets standards of traditional intelligence, but operates on other forms of information – social, practical, personal and emotional [43]. Emotional intelligence disposition shows positive relationship with various domains of life, like work satisfaction [44], marital satisfaction [45], mental health [46], well-being – especially happiness measures [47]. Emotional intelligence framework, focuses on trait-like perspective of affect management, and is perceived, by some researchers as parallel tradition, next to emotional regulation, of research on affect management. While emotional regulation tradition studies processes of affect management as separate phenomena, emotional intelligence tradition focus on contextual perspective of their functioning. It

argues that individuals show propensity to use some regulation strategies and not use others, what constitutes their emotional regulation style [24]. Following the example of the malicious colleague: one person will eagerly avoid taking the bus, engage in conversations with other passengers or even will consider buying oneself a car, whereas the other will consider improving their verbal self-defence abilities and openly talk with the co-worker about their feelings, not only in this particular situation but more as a habit.

Both emotional regulation and intelligence tradition emphasize role of emotional awareness in one's affective functioning [4; 42, 23]. Emotional awareness was found to be associated with more adaptive regulatory strategies – reappraisal instead of suppression [41]. In the opposite, difficulty identifying emotions was associated with compulsive behaviour – gambling [29]. One of explanatory mechanisms behind affect regulation difficulties include low distress tolerance [48, 40]. Low distress tolerance manifests itself in perceiving distress as unbearable, not accepting it and seeing one's abilities to cope with distress lower than others. Individuals with low distress tolerance make use of the quickest and easiest ways of boosting their mood, not considering the side effects of their actions [48]. Rose and Segriest [40] found meditating role of low distress tolerance between difficulty identifying emotions and compulsive buying.

Difficulty identifying and describing emotion, next to difficulty distinguishing between feelings and bodily sensations, paucity of internal experiences (fantasies) and externally oriented cognitive style, that contribute to failure in affective regulation, are all components of alexithymia [1] [29]. Alexithymia construct emerged on the ground of psychosomatic medicine, after observation of emotional functioning of patients suffering from psychosomatic diseases, who due to lack of understanding of their emotional state were preoccupied by physical symptoms [49]. However, recent studies show that alexithymia, which is understood as a psychological trait [50] and measured by Toronto Alexithymia Scale, developed by Bagby, Parker, and Taylor [51] is not specific for only one mental disorder, but also for conversion [52], major depression, social anxiety disorder [53], panic disorder, generalized anxiety disorder [54], anorexia nervosa and bulimia nervosa [55]. Alexithymia was found to be correlated with gambling [29] – one of self-regulatory lapses. Keltikangas-Jarvinen [56] study on aggressive fantasies of violent offenders is a vivid example of relation between alexitymia and affect regulation. The violent offenders, as compared to non-violent offenders, had high alexithymia score and were less likely to fantasise aggression in projection test. This shows the link between inability to recognize affective states and expressing them in socially acceptable manner, what constitutes emotional regulation [57].

Aforementioned findings show importance of basic skills constituting affect regulation. Both emotional regulation and emotional intelligence traditions indicate the role of affect awareness, identifying and differentiating particular components of emotional episode in healthy and effective functioning, while studies on alexithymia (which covers opposite characteristics) evidence its' strong link with various forms of pathology.

5. Procrastination in Affect Regulation Context

Having affect regulation established as a significant contributor of general well-being, some researchers shift attention to its' potentially disadvantageous forms, that may result in successful altering of current (short time perspective) mood but impede prospective goals implementation, what is considered as a general self-regulatory problem. Procrastination, in which current affect is given priority to finishing intended projects, finds its' place among different self-regulatory lapses [58].

To explore in-depth picture of how individuals engage in procrastination, Pychyl and colleagues [5] used experience sampling method constructed by Csikszentmihaly [59] in a sample of students during examination period of the semester. Experiment was based on monitoring what activity students engaged during that time, how they felt (emotions) and what they thought

(appraisal of the activity as: important, pleasant, stressful, difficult, confusing) about what they were doing. Results indicate that activities students felt they should be doing (personal importance) and activities they were engaging in weren't always exclusive (sleeping, eating, talking to family/friends). Students' perception of difficulty, confusion, stressfulness of studying (what they felt as should be doing) was higher and perception of amiability was lower when they procrastinated (were avoiding them) than in times of studying (involvement). Procrastination was positively associated with guilt and negatively with motivation (toward the task). Study also brings evidence for link between negative affect and procrastination as a disposition [5]. Other studies show positive link between chronic procrastination and shame [60], higher (in comparison with non-procrastinating individuals) test and weekly state anxiety and belief about low ability to delay gratification, self-efficacy, ability to control ones' emotional reactions [16]. Procrastinators also tend to use various forms of excuses to avoid facing consequences of failing to meet deadlines of the task they are postponing. For example Ferrari and Beck [18] found that students, who tend to postpone their academic obligations use more fraudulent excuses in comparison to more conscientious students. The first group experienced more positive feelings (like being happy, calm, confident, relieved, excited) about excuses before using them, but stronger negative affect (being scared, nervous, guilty, ashamed, frustrated or desperate) during and immediately after the excuse [18].

To deepen the understanding of mental process leading individuals to procrastination Spada, Hiou and Nikcevic [17] studied cognitive sources of its' decisional and behavioural form. Specifically, in the study, conducted in academic environment, they questioned students about their metacognitive beliefs, and found that belief about cognitive confidence (level of certainty that cognitive functions like planning, memory or decision making are functioning well) was significantly related to behavioural procrastination. Together with positive belief about worry (holding a notion that worry serves an important role in individual's functioning), negative beliefs about thoughts concerning uncontrollability and danger (worry that thoughts can cause harm) and belief about need to control thoughts (holding theory that thoughts have to follow individuals' vision) was significantly correlated with decisional procrastination [17]. This shows that exerting too much control over cognitive control inhibits another cognitive function – decision making.

In broader perspective of personality structure, procrastination was found to be negatively correlated with conscientiousness [62] However, understanding stalling behaviour only as a manifestation of low conscientiousness, would miss an importance of its' temporal perspective. This line of research [63, 64] studies individuals' focus on self perspective: past, present and future, which stand for preference for cognitive attention directed at oneself in one of the three time frames. For example an individual with present perspective gives most of their thought to their current feeling state, values most immediate profits, because they contribute to the present well-being. In the same time a person with future perspective gives more thought to things that will facilitate their forthcoming self. Sirois [64], in meta-analysis of 14 studies on procrastination and time orientation, found that procrastination was linked to high present perspective and low future perspective. In parallel to this framework theory of specious reward assumes that humans have stronger inclination for choosing short-term (immediate) rewards over longer-term rewards [63]. This conceptualization could bring explanation to procrastinators' dwelling on present, provided they would associate it with more positive experiences. Contrary to this intuition Jackson [63] found that individuals engaging frequently in stalling behaviours hold resigned, fatalistic view of present, with rather negative perception of past and pessimistic attitude toward future. Moreover, results show that procrastinators do adapt hedonistic attitude toward life pursuit of pleasure, which fails to be an effective strategy of unpleasant feeling avoidance [63].

The link between temporal perspective and procrastination points out toward cognitive mechanisms underlying the tendency to postpone task completion. Findings in this domain show how people tend to evaluate and plan their actions in order to keep their affect as pleasant as possible. Among various hypothesis contributing to this understanding, several explores the aspect of personal preference that occurs between automatic perception and acting on the intention, the

propositions include: *resource slack hypothesis* [65], *construal level theory* [13, 66], *planning fallacy* (Kahneman, Tversky, 1979, in: 67], *discounting-induced preference reversal* and *stable but intransitive preferences* [68]. Each of them will be described with reference to research on their suppositions.

In correspondence with specious reward theory Zauberman and Lynch [65] experimentally tested mechanisms behind delay discounting, which (alluding to specious reward theory) involves a preference for smaller reward now than a larger later or higher cost later than a small one now. The mechanism (*resource slack hypothesis*) assumes differences in perception of changes in resource slack, that is dependent on its' temporal aspect. Common misperception of the resource is that it seems to be greater later than now. When time availability is considered as a resource, people tend to think that they will have more time available in future than at the moment. This is crucial when planning completion of a task, especially when it requires to devote time: people prefer to spend their time on a task in the future, when they believe to have more of it, than at present, when time is scarce. This disproportion in resource slack is closely biased on present – the closer the period of first investment is to time of decision, the larger resource slack seems to be in second period of time – the period of delayed investment. In fact, present, in Zauberman and Lynch [65] experiments turned out to be busier than any other point in future [65]. Soman [69] brought more evidence to resource slack hypothesis in consumer context research, and found that effort associated with shopping seems to be easier when it is mentally located in more distant future comparing to present. When individuals are asked to plan two tasks of different difficulty at present the one requiring more time devotion seems to be more aversive, when the tasks are presented in some time delay both tasks are evaluated as equally aversive [69].

According to *construal level theory* [13]. people are more eager to attend to projects which they perceive as more concrete – know more details about them, than to more abstract ones. The former ones are low-level-construals and represent near events, while the latter are high-level-construals and are associated with distant events [66]. In three experiments McCrae and colleagues [13] confirmed that when a task is presented in concrete form, accentuating the means of performing it, focusing on examples, as opposite to category, or simply by focusing attention on details, people are more probable to complete it in timely manner. Whereas, when features of a similar task highlight its' reasoning (abstract "why" of doing it), focus on category either its' global characteristics people tend to postpone its' completion [13].

Another factor predisposing to dilatory behaviours may be overly optimistic prediction of task completion time, what Kahneman and Tversky (1979, in: 67] defined as a *planning fallacy*. Planning fallacy is a kind of misperception that concerns personal situation, especially evaluation of task time demands – indicating difficulties to incorporate previous experience information to forthcoming duties. In five studies Buehler, Griffin and Ross [67] confirmed that students tended to underestimate time needed to complete tasks given. What's more they presented high level of confidence they should succeed in finishing them in timely manner.

Unfolding the scientific discourse on specious reward theory Andreou's [68] *discounting-induced preference reversal* framework develops hypothetical explanations for the preference reversal, which is the specious reward parallel, that focus on the act of preference. In this framework choosing a smaller reward now before a larger one later is dependent on opportunity. Reasoning humans do prefer more beneficial situation, even if they have to wait for it. However, when the opportunity to obtain any benefit gets close enough, they don't resist temptation and choose the smaller reward immediately, squandering a chance for a better reward later. The opportunity is a central component in discounting-induced preference reversal theory, that turns individual's intention to implement their premediated project into a shortsighted pleasure. In this context, the reward or pleasure can be understood as expectation of positive feeling resulting from successful completion of a quicker task at hand – in comparison with waiting for a even more positive feeling after finishing a larger task. The decision to yield to temptation only in current situation with strong determination to resist it in every time in the future, according to Andreou [68] is characteristic for procrastination in discounting-induced preference reversal mechanism.

The second Andreou's [68] proposal - *stable but intransitive preferences* - is more related to the decision making process. If an individual has to choose when to implement the action plan they may prefer to act later than now. Stable but intransive preference hypothesis states that in the t point in time individual will prefer to act in t+1 point in time, in t+1 point in time they will prefer t+2 and so on. However, especially when deadline is considered in this evaluation, an individual will prefer to act now than at a point in time, they recognize as a last-minute. Still, the option to delay the action for a non-threatening to task completion period of time is more attractive than performing it at present. This reasoning keeps the procrastinator busy wondering about the most beneficial course of action and automatically delays operation.

The theories outlined above present cognitive mechanisms underlying procrastination. Their common feature is a motive to preserve a good feeling state or to quickly achieve some task completion satisfaction disregarding the chance to benefit even more provided for necessary effort exertion and time investment. This phenomenon can be examined in context of Gross' [23, 24] process model of emotion regulation. If procrastinators postpone intended task completion in order to maintain a good feeling state, regardless if it's due to fear of losing it while focusing on a demanding task or reluctance to wait for a larger reward (satisfaction) when an opportunity for a tinier one is very appealing, then they regulate their affect by withdrawing from the situation. This attitude corresponds with the family of regulatory strategies characteristic for the first phase of emotion elicitation – situation selection. However, such a course of action stand in opposition to procrastinator's initial plan to behave in certain way to attain certain benefits. In Tice and Bratslavsky [4] terms this attitude can be seen a form of misregulation, because the affective outcome – good feeling in present but possible frustration in longer time perspective – is contradictory to what the individual desired.

In support of this line of reasoning Tice and Bratslavsky [4] explain that when a procrastinator notices an unpleasant affect (such as anxiety or distress) while intending to perform some obligation or task, they give priority to taking care of their mood and prefer to drop the planned activity. The withdrawal is a successful strategy of reducing the unpleasant experience in the short time perspective – the individual feels relieved immediately [4]. Nevertheless, it was evidenced in academic context, that students who tend to procrastinate suffer from more stress and health problems than their non-procrastinating in longer time perspective [70, 71]. Specifically Tice and Baumeister [70] study found that procrastinators experienced less stress and had less physical symptoms during a semester, which stands for short term profits, but exceeded non-procrastinators in both measures at the end of the semester. In fact the difference in symptoms between the beginning and the end of the semester was significantly higher for students with tendency to delay academic task completion. What's more, contrary to procrastinators belief, that they act best under pressure, tasks resembling the conditions they put themselves into doing their assignments at the last minute (time limit, high cognitive load) are associated with worse performance [72].

A distinct perspective on procrastination place in self-regulation domain applies to nature of affective states. Most researchers of the field use terms 'mood' and 'emotion' interchangeably as a term for the similar affective experience closely connected with procrastination [58, 4, 70, 71]. A question that remains unanswered due to this equivocal phenomenon understanding is mechanism behind procrastination and its' self-regulatory function. Studies examine the link between unpleasant affect and procrastination, but fail to specify whether they refer to emotional episode elicited by task planning or mood that individual experiences regardless the task itself. If procrastination is elicited by unpleasant emotion induced by the obligation they are supposed to fill then it might be low distress tolerance [40] behind the failure to overcome the impulse of task avoidance. An individual both approaches the task, because of its' long term benefits, and avoids it, because of the distress connected with starting a new activity. Low distress tolerance acts in favour of avoidance tendency, which prevail in form of procrastination. On the other hand, low mood was documented to reduce capability to withstand impulses like eating, delay of gratification or procrastination [19]. In this case however, it isn't low distress tolerance responsible for task

avoidance, but rather low mood proness and belief that doing something pleasant, or avoiding something unpleasant, can improve mood, that was given priority before completing the task.

The literature so far portrays procrastination as a purposeful, yet counterproductive, strategy of affect regulation. Numerous studies evidence low benefits and high costs of procrastination [70, 18, 60, 72]. What remains disputable is specific mechanism of this regulation failure, a question that might result from lack of terminological clarity – interchangeable use of concept of emotional episode and mood as experience directly precluding avoidance of an activity. Temporal approach to procrastination line of study brings promising accommodation of temporal self perspective, that is closely associated with personal goals and values, and affect role in their pursuit.

6. Final Remarks

The article commented on procrastination in context of affect and general self-regulation. First, definition of the phenomenon, together with its' various forms was presented. Literature review on affect regulation followed, specifying some of its' adaptive and maladaptive forms. Procrastination was described through findings from research on the phenomenon together with presentation of various hypothetical mechanisms underlying it. The explanations described served in locating of procrastination as a specific form of affect regulation attempt in Gross' [23, 24] process model of emotion regulation.

Two (at least) questions surface the preceding discourse: (1) how to overcome procrastination, and (probably a more thoughtful one) (2) how to regulate affect in effective and functional way? In fact, addressing both question will help to highlight the massive body of knowledge about self-regulation that psychological research accumulated, despite the numerous questions still remaining unanswered. Referring to the first inquiry, for example Gollwitzer's [73] intention implementation was find to be a robust field of study offering a potent remedy for stalling behaviours. The clue of the proposal is specification of condition and details of actions planned, for example if individual intends to start working on assignment they should include in their plans when precisely they will do it ("at ten a.m."), where ("at my desk") and how ("make notes of five articles"). Generally, skilful planning, that involves identifying sub-goals (of the target goal), putting them in time order, and staying attentive to various difficulties that one may encounter (like what to do when conditions are disadvantageous), is an acknowledged contributor of intended action execution [74].

It's noticeable that most of aforementioned studies [for example 2, 13, 75] help in answering the second question, about effective affect regulation strategies, pointing toward cognitive reappraisal as a adaptive and successful method of altering one's feeling states. This can be an empowering information not only for therapists, equipped in knowledge of humans affective functioning, but also for individuals eager to discuss with their own thoughts. Another common conclusion reported across affect regulation research is importance of subjective state consciousness [49, 39, 40, 41]. A pointer from this line of studies leads to techniques of self-awareness and self-observation development. The arguments chosen to reflect on questions about overcoming procrastination and affect regulation by no means exhaust the magnitude of literature in area of self-regulation. They role was to direct a reader to respective literature and encourage them to consider the findings as a guide post in journey of self-cognition and self-improvement. Correspondingly, the problem brought in the article, which aimed in situating the procrastination inside self-regulation domain, is far from clarification. However, authors believe it gives a valid insight into the context of the issue and contributes to its' understanding, by providing authorial perspective in the subject.

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Notes

1. Alexithymia by some authors is defind as specific disturbance in psychic functioning (Taylor, 1984), some others refer to alexithymia as a trait (Swart, Kortekaas, Aleman, 2009). Alexitymia term was coined by Sifneos (Taylor, Bagby, Parker, 1991) as referring to address cognitive and affective characteristic of psychosomatic patients.