Theory, Assessment and Intervention of Academic Procrastination: 
Current findings and future directions

Maria-Ioanna, Argiropoulou, Kalantzi-Azizi, Anastasia, Roussos, Petros

Department of Psychology, University of Athens, Greece

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Political consensus regarding the need to develop psychological counseling services to enable students to deal with difficulties interfering with successful completion of their studies.

Development of Student Psychological Services across many universities.

University students constitute a group with special characteristics and needs associated to their developmental stage.
Problematic Academic Procrastination

It has been reported in a very significant proportion of university students, both in Greece and internationally.
International situation

- 80-95% of the students procrastinate at some point of their lives
- 75% of them believe that they procrastinate towards meeting their study obligations
- 50% systematically procrastinates
- 20-40% of the student report having very serious difficulties
Situation in Greece

50% of the undergraduate students do not ever graduate

length of studies is extended up to 25% in Greek universities

Greek university students in particular were found to be 1,5 to 2 % times more likely to develop a psychological disorder comparing to the general population according to a large epidemiological study
“I’m sorry I didn’t practice this week Mrs. Tinklemeyer, I just had so many distractions!”
Definitions

Procrastination is characterized by self-regulation difficulties in the form of delaying the start and/or completion of necessary and important tasks.
Not all delay is procrastination…

- Delay is part of making priorities
- Procrastination is a **needless** voluntary delay, namely the voluntary delay of an intended action **despite the knowledge** that this delay may **harm the individual** in terms of the task performance at hand or even just how the individual feels about the task or him- or herself
The concept of Procrastination can take different meanings in different time periods or cultures...

“people in a hunter/gatherer environment should find that their motivational compulsions fit motivational demands almost perfectly; "As long as they sleep and hoard and mate when the relevant urge arises, they will behave more or less adaptively in the environment in which those urges evolved" (George Ainslie, 1992).

• Before the industrial revolution procrastination was viewed neutrally and could be interpreted as wise course of action

• Unfortunately, in our civilized circumstances, contingencies are quite different, and it often becomes important to act not as nature intended
Hesiod (800BC): “Do not put your wok off till to-morrow and the day after; for a sluggish worker does not fill his barn, nor one who puts off his work: industry makes work go well, but a man who puts off work is always at hand-grips with ruin”

Thucydides (400BC): “Procrastination is the most criticized of character traits, useful only in delaying the commencement of war so as to allow preparations that need conclusion”

Krishna (500BC): “Undisciplined, vulgar, stubborn, wicked. Malicious, lazy, depressed and procrastinating: such an agent is called Taamasika agent”

Cicero (44 BC), “in the conduct of almost every affair slowness and procrastination are hateful”
Leonardo da Vinci

The Last Supper was only finished after his patron threatened to cut off all funds.

Mona Lisa took twenty years to complete. The Adoration of the Magi, an early painting, was never finished and his equestrian projects were never built.
Forms of procrastination

- **Decisional procrastination** (e.g. putting off decisions)
- **Arousal procrastination** (e.g. putting off to seek thrills)
- **Avoidant procrastination** (e.g. putting off to protect self-esteem or due to fear of failure)
Aim of the presentation

• review current findings on the causes and correlates of problematic procrastination,
• present the research program launched by the Counselling Centre for Students of the Department of Psychology of the University of Athens,
Theory
Theoretical background

There are two main traditions in studying procrastination:

• Some researchers view procrastination as a stable personality trait
• others study procrastination as a behavior closely related to the characteristics of a given task or situation.
Procrastination as a personality trait
Correlates of procrastination

- Conscientiousness
- Self-esteem
- Self-efficacy

+ Neuroticism (impulsivity & vulnerability)
+ Proneness to boredom
Situational correlates of procrastination

“The trend in tough economic times is to put off everything that doesn’t require immediate action – as this chart shows.”
Situational correlates of procrastination

- task attractiveness

+ time distance from the reward
Mediating factors

- intention
- self-efficacy expectations
- self-regulatory processes

Demographics

- Age (younger)
- Gender (men)
- Year (increase)
Utility = Expectancy X Value
           Γ X Delay

Expectancy: Self-efficacy
Value: Task aversiveness, Need for achievement, Boredom proness
Sensitivity to delay: Distractibility, impulsiveness, lack of self-control, age
Delay: timing of rewards and punishments, organized, intention-action gap
The role of Volition

- The failure to implement intentions and the intention-action gap is actually significantly more often among procrastinators than people who don’t often exhibit dilatory behaviors.
- This demonstrates the importance of volition in explaining self-regulation failures.
- Gollwitzer, Kuhl and the study of volition....
Kuhl’s Personality Systems Interaction Theory (PSI)

Motivational and volitional phenomena (see on the right) can be explained in the basis of the interaction among four cognitive systems:

- Concentration
- coping with failure
- identification and intrinsic commitment to personal goals
- Persistence
- implementation of intentions
Cognitive macrosystems

IM
Analytical thinking and memory of explicit intentions

IBC
intuitive behavior control

Cognitive macrosystems

(EM)
holistic feeling & memory for extended semantic fields

OR
discrepancy-sensitive object recognition
PSI

The above pattern of interactions is modulated by affective change (state orientation vs. action orientation)

Self-control: maintenance and enactment of conscious goals and intentions in the Explicit memory. This function is facilitated by negative mood. Conscious process that inhibit or suppress other cognitive emotional systems to protect ongoing intention from competing alternatives. Supports others-directed goals/self=alien goals.

Self-regulation: maintains one’s actions in line with the self as defined by needs, emotional preferences, values & beliefs. This function is facilitated by positive mood. Unconscious process that integrates as many cognitive and emotional subsystems and processes to support a chosen action. New solutions, self-motivational resources. Supports only self-compatible goals.
Currents gaps and future directions

- Although intention-action gap has been found to have a significant correlation with procrastination according to meta-analytical studies, to our knowledge no studies have simultaneously linked dispositional and situational factors to the PSI to explain procrastination.
Currents gaps and future directions

- Social influences, such as family, are quite often neglected despite the fact that family can have an impact on both internal (personality, volition, self-efficacy) and external factors (task attractiveness, congruency of task goals to the self)
- In the few studies that have addressed this issue, links have been found between procrastination and parental style
Despite the constantly expanding literature on procrastination internationally, an integrated model explaining how social & personality factors along with situational factors relate to motivation leading to procrastination is missing.
assessment
• General Procrastination Scale (GP; Lay, 1986)
• Adult Inventory of Procrastination (AIP; McCown & Johnson, 1989)
• Decisional Procrastination Scale (DP; Mann, 1982)
• Tuckman Procrastination Scale (Tuckman, 1991)

• Irrational Procrastination Scale (Steel, 2002)
• Procrastination Assessment Scale-Students (Solomon & Rothblum, 1984)
• Tel-Aviv Procrastination Inventory (Milgram, Sroloff, & Rosenbaum, 1988)
• Aitken Procrastination Inventory (Aitken, 1982)
Intervention
Learned Industriousness: Classical conditioning occurs when an event or an action dependably leads to a pleasing outcome. After many repetitions, the preceding event or action starts to be conditioned and is perceived as rewarding in itself. New tasks should be structured so that the earlier efforts lead to success.
• ego energy is used in many impulse restraining or delaying acts, such as thought suppression or even just volition itself
• this energy is quite limited, and as it depletes, the ability to self-control diminishes
• it is renewable, and perhaps expandable with continued use (i.e., stretching it). Consequently, as we get tired, stressed, or frustrated, our ability to suppress or redirect our needs is hampered and thus so is our aptitude at preventing procrastination
Goal setting: taking some larger goal and breaking it down into a series of smaller tasks.

For optimum effectiveness, these goals should have four properties:

- **Specificity**: explicit standards and conditions that indicate their fulfillment
- **Challenge**: challenging goals have higher value and are less easily overshadowed by other alternatives
- **Proximity**: goals should be completed in a timely manner (e.g. today or even just this morning)
- **Routine**: goals that are scheduled to occur at a regular time and a regular place. The more junctures that require choice, the more likely it is that we will procrastinate
• Increase task completion: self-efficacy, modeling (Bandura),

• Stimulus chaining: a stimulus that predicts the reward

• Stimulus control (cues that confirm their goals, banish signs of temptation, e.g. study in the same place, cut-off internet access)

• Occasional indulge in short-range impulses

• Fusing: different needs may be satisfied through a single action (e.g. study groups for those who prefer socializing)
Current gaps and future directions

- There is a scarcity of studies investigating effective intervention programs.
- Brain functioning and procrastination.
- The concept of procrastination and the need to treat it is expected to vary in countries with different value systems, different time orientation and different paces of life.
No studies have examined the numbers of students displaying problematic procrastination or its consequences in the lives of Greek students and their families.

There is a dearth of reliable screening tools for clinical or research purposes.

No studies evaluating the effectiveness of intervention programs among Greek samples were found.
A brief presentation of our research project
Estimate the number of students displaying problematic academic procrastination in Greece

Test an integrated theoretical model of procrastination focusing on mediating factors
Aims

Examine the consequences of problematic procrastination

Evaluate whether students would be eager to participate in an intervention program or if they feel such a program would be useful

Adjust certain assessment tools suitable for research or clinical purposes
Method

- Research assistants will contact professors teaching undergraduate courses and ask their permission to collect data during their course.
- After their initial agreement and informed consent research assistants will ask the participants to fill in a battery of self-reported questionnaires during the 15’ of their course.
- Data collection will take place in the country’s major Universities, located both in the capital city and in the province.
- Collaborating Universities abroad will participate in data collection to enable cross-cultural comparison.
- Snowball sampling method will be used additionally to spot students that don’t regularly attend university classes.
Discussion:

Are new theories or assessment and intervention tools necessary or do we need to combine and adjust current tools to the individualized needs of specific individuals or populations?
Individualized training based on systems-interactions testing

- people who easily enter and/or have difficulty leaving negative states: anxiety-reducing training
- people whose intrinsic motivation is more easily undermined by external rewards rather than by conditions of coercion: Training in becoming more sensitive to their latent anxieties
- PSI theory also suggests that personality dispositions associated with inhibited sensitivity for positive affect (e.g., introversion) or enhanced sensitivity for negative affect (e.g., neuroticism) are not as problematic as dispositions impairing affective change: self-motivation, self-relaxation
“A journey of thousand miles begins with a single step”
“A job begun is a job half done”