

## The tri-transactional theory of stress - Empirical evidence

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### Abstract

In this paper we present the empirical evidence of our tri-transactional theory of stress. According to this mathematical numerical model, the stress intensity generated when encountering a stimulus (positive or negative) depends not only on this latter's intensity (ST), but also on the previous state of stress (PSS) that a person possessed before facing the stimulus. Its value is the combination of PSS and ST, which is described in the model by the Ktiri-stress formula ( $S=PSS+ST$ ). In order to examine the necessary effect of PSS, the present study tested the hypothesis that the value of S would simultaneously be different from PSS and STA, where STA is the (perceived) mean of stress intensities of the stimuli that the participant faced during a period. From 68 participants we collected 127 measures. Each measure includes the values of PSS, STA and S. For statistical analyses, we used T-student and ANOVA to compare between S, PSS and STA and Rho Pearson to check the relationships between partial stresses (emotional, mental, and physical). The results have effectively shown that the intensity S of stress is a combination of PSS and STA. S is different from STA ( $p<0,005$ ) and from PSS ( $p<0,005$ ) in terms of total stresses. In terms of partial stresses, S-emotional is different from PSS-emotional ( $p<0,05$ ) and not from STA-emotional ( $p>0,05$ ). S-mental is different from PSS-mental ( $p<0,05$ ) and from STA-mental ( $p<0,05$ ). S-physical is different from PSS-physical ( $p<0,05$ ) and not different from STA-physical ( $p>0,05$ ). In addition, we found that PSS and STA have an increasing and a decreasing effect of stress if they are of different signs. S is not different than (SPSS + STA) ( $p>0,005$ ) if PSS and ST have the same signs or of different signs. We found also that emotional stress and mental stress have a significant effect on each other ( $p<0,05$ ). We conclude that the dimension PSS, introduced in our tri-transactional theory of stress, is necessary to take into account in order to explain the occurrence of stress. The value of S that is not different than (PSS + STA) shows the validity of the stress Ktiri formula ( $S=PSS + ST$ ). These results prove the validity of our new model of stress.

### Biography:

Ktiri Fouad is a clinical psychologist, a psychology teacher, a researcher and a yoga coach. His experiences in clinical psychology and yoga-relaxation allowed him to publish, in 2015, a paper book entitled "Stress - How to prevent and fight it - New psychological, spiritual, body and cognitive techniques". From 2009, he has animated conferences and participated in many radio psychological programs.

His experiences as a physics and computer graduate helped him to combine psychology and mathematics, which allowed him to elaborate a new stress numerical model and published it on 2016.

[7<sup>th</sup> International Conference on Depression, Anxiety and Stress Management](#); Barcelona, Spain January 20-21, 2020.

### Speaker Publications:

1. Cannon, "The Wisdom of the Body". New York, NY: Norton. 1932.
2. H. Selye, "The Stress of the Life" New York, NY: McGraw-Hill, 1956.
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5. Dahl, Ronald E., The consequences of insufficient sleep for adolescents: Links between sleep and emotional regulation. Phi Delta Kappan 80.5 (Jan 1999): 354-359.

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