

# Flow synchronization: the dynamics of flow in a challenging interactive activity

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## KEYWORDS

flow, flow synchronization, social, interactive, coordination

Background: Flow is a subjective experience (Csikszentmihalyi, 1975), but studies based on interview technique or experience sampling method suggest that social interactions can be the sources of flow experience (Csikszentmihalyi & Hunter, 2003; Delle Fave, 2009). There have been different concepts to describe flow in social contexts – e. g. shared flow (Csikszentmihalyi & Selega Csikszentmihalyi, 1988), social flow (Walker, 2010), group flow (Sawyer, 2008) –, which highlight the comprehensive quality of this experience (Walker, 2010). Theories about the coordination dynamics of interactions – e. g. emotional contagion (Hatfield, Cacioppo, & Rapson, 1994), crossover of states/experiences (Westman, 2013), social coordination (Ackerman & Bargh, 2010) – emphasize the automatic synchronization of emotional, behavioral and psychophysiological patterns, or mental states (like flow), and the increased value of the interpersonal experiences.

Aim: Based on the synchronization tendency of human interaction, we assume that this coordination can be observed in case of flow experience (Varga & Józsa, 2013), during a cooperative activity (Delaherche et al., 2012). In order to measure the dimensions of the related social interaction, we aimed to conceptualize and operationalize the possible phenomenon of flow synchronization (Magyaródi, Soltész, Mózes, Nagy, & Oláh, 2011).

Method: In the series of the studies (Magyaródi, 2016), our explorative aim was to focus on flow experience in social interactions with its possible antecedents and consequences, to get a coherent picture about this psychological phenomenon. We used experimental designs, interview and survey technique to be able to study the concept as wide as we can. We measured the experience of 6323 adult participants altogether (the mean age of the participants in the 6 studies: 25.56 years, SD = 8.76). The frequency of male and female participants in the 6 samples are the following: 36.15% male, 68.85% female.

Results: According to our results, the quality of flow experience in a social interaction is more intense, than in a solitary activity. We could observe the synchronization of the partners' optimal experiences during their common work. Flow experience is supported by the components of flow synchronization with are based on the nature of the interaction during the experience. Personality differences were found in flow proneness in social activities, and we identified personality characteristics which can be developed to become more disposed to experience flow in both solitary and social situations.

Conclusions: The experience of flow in a shared, cooperative activity may contribute to the fulfillment of the basic human needs, supporting the person to develop competences, to use social skills, to improve the quality of the relationships and well-being factors also, in both short and long terms, to promote the flourishing of individuals and social relationships.

## References

- Ackerman, M., & Bargh, J. A. (2010). Two to Tango: Automatic Social Coordination and the Role of Felt Effort. In B. Bruya (Ed.), *Effortless Attention – A New Perspective in the Cognitive Science of Attention and Action* (pp. 335–371). Cambridge, MA: The MIT Press.
- Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety*. San Francisco: Jossey-Bass Publishers.
- Csikszentmihalyi, M., & Hunter, J. (2003). Happiness in everyday life: The uses of experience sampling. *Journal of Happiness Studies*, 4, 185–199. <http://doi.org/10.1023/A:1024409732742>
- Csikszentmihalyi, M., & Selega Csikszentmihalyi, I. (Eds.). (1988). *Optimal experience: Psychological studies of flow in consciousness*. Cambridge, United Kingdom: Cambridge University Press.
- Delaherche, E., Chetouani, M., Mahdhaoui, A., Saint-Georges, C., Viaux, S., & Cohen, D. (2012). Interpersonal Synchrony: A Survey of Evaluation Methods across Disciplines. *IEEE Transactions on Affective Computing*, 3(3), 349–365. <http://doi.org/10.1109/T-AFFC.2012.12>
- Delle Fave, A. (2009). Optimal experience and meaning: Which relationship? *Psychological Topics*, 18(2), 285–302. <http://doi.org/159.9.019.9916.6:159.922.2>
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). Emotional contagion. *Current Directions in Psychological Science*. <http://doi.org/10.1086/322897>
- Magyaródi, T. (2016). *Az áramlat - élmény vizsgálata társas helyzetben*. Eötvös Loránd Tudományegyetem Pedagógiai és Pszichológiai Kar. Retrieved from <https://doktori.hu/index.php?menuid=193&lang=HU&vid=16630>
- Magyaródi, T., Soltész, P., Mózes, T., Nagy, H., & Oláh, A. (2011). Flow synch and its determinative factors: Personality characteristics and environmental background. In *The 12th European Congress of Psychology: "Understanding & Embracing Diversity"* (p. 1170). Istanbul: European Federation of Psychologists' Associations (EFPA).
- Sawyer, K. (2008). *Group Genius: The Creative Power of Collaboration*. New York: Basic Books.
- Varga, K., & Józsa, E. (2013). Új módszer a kétszemélyes interakciók szubjektív értékelésére: A Diádikus Interakciós Harmónia kérdőív. *Magyar Pszichológiai Szemle*, 68(3), 419–440.
- Walker, C. J. (2010). Experiencing flow: Is doing it together better than doing it alone? *The Journal of Positive Psychology*, 5(1), 3–11. <http://doi.org/10.1080/17439760903271116>
- Westman, M. (2013). Crossover of Positive States and Experiences. *Stress and Health*, 29, 263–265. <http://doi.org/10.1002/smi.2535>