## **Editorial**

## Sabina Pauen

Good self-regulation skills are typically associated with a broad range of positive outcomes, including academic and social achievements, prosperity and mental wellbeing. But when and how do these skills first emerge? How can we best describe and measure them? And what determines their development? The six original papers presented in this Special Issue search for answers to these questions. The authors come from various institutions in different countries. What unites us is the hope that solid research on the very beginnings of self-regulation skills will help us to support the next generation in living a healthy and happy life.

According to recent longitudinal studies, self-regulation capacities emerge in early childhood but remain sensitive to social influences throughout the entire lifespan. They result from a combination of brain maturation processes and social influences. Whereas newborns completely depend upon their caregivers when it comes to satisfying basic needs or keeping their psychological balance, toddlers and preschoolers already show some degree of independence in this respect. Even though they still experience limitation in self-regulation of their motivational, emotional, and cognitive states, they none-theless make great progress in gradually gaining control of their own mental processes.

The impact of caregivers on this process is analyzed and explained in more detail in the first paper of this Special Issue: Pauen and colleagues present the EDOS model (Early Development Of Self-regulation), a framework that describes structural changes in self-regulation skills throughout early childhood, thereby defining different aspects of self-regulation and specifying how caregiver's co-regulation varies with the age of the child. The author also presents the so-called PROSECO model (PROcess of SElf- and CO-Regulation). This model identifies multiple ways in which experimenters co-regulate performance of young children in laboratory settings. Both models ask how adults shape self-regulation in young children, one taking a more general approach and describing how young children are educated by their parents to apply self-regulation strategies, and the other zooming in to understand how performance of young children in instructional tasks (even tasks measuring self-regulation skills) depends on co-regulation by adults.

The second contribution (The role of coregulation for the development of social-emotional self-regulation), authored by Judith Silkenbeumer, Eva-Maria Schiller, Manfred Holodynski and Joscha Kärtner focuses specifically on social-emotional self-regulation and the process by which caregivers teach 4- to 6-year-olds to deal effectively with emotionally challenging social situations. The proposed internalization model of reflective emotion regulation states that caregivers first support children by talking about emotions (of self and others) before they guide them in generating, evaluating and selecting arguments that seem useful for responding in a socially accepted way.

To assess the complex interactions between caregivers and children in promoting children's development of self-regulation, the third contribution (Co-and self-regulation in the caregiver-child dyad: parental expectations, children's compliance, and parental

practices during early years), authored by Bechtel-Kühne, Strodthoff and Pauen presents a newly developed questionnaire (IMMA 0-6 IMpulse MAnagement in the parent-child dyad form 0 to 6 years of age) and the empirical relations between parental ideas and practices on the one hand, and children's behavioral responses on the other hand. This new tool can help researchers as well as practitioners to assess what happens in parent-child dyads or - at least - how caregivers perceive this process.

The fourth contribution (A Review of hot executive functions in Preschoolers), authored by Nancy Garon addresses an aspect of self-regulation that seems highly critical when it comes to acquiring self-regulation skills, namely how children learn to suppress a dominant behavioral response in order to make an alternative choice. The author provides a detailed task analysis of two experimental paradigms often used to assess "hot executive function skills", but also discusses implications referring to the general hot-vs.-cool EF debate.

The fifth paper (Impact of instructional modality and emotional valence on the reflective emotion regulation of expression in preschool children) by Kromm, Hettwer, Kärtner and Holodynski also addresses "hot" processes of self-regulation - in this case emotion regulation. The authors are mainly interested in the ability of children to mask their true feelings when being instructed to do so. This masking process requires self-regulation skills. As revealed in the paper, children's competence not only varies with age, but also with the nature of the instruction. Interestingly, verbal instructions were not as efficiently as iconic instructions.

Finally, the sixth contribution (Self-regulation in preschooler's everyday life: exploring day-to-day variability and within- and between-person structure), authored by Ludwig, Haindl, Laufs and Rauch, asks about the short-term stability of self-regulation skills. The authors demonstrate that young children's self-regulation skills strongly vary on a day-to-day basis, and also differ when it comes to self-regulation of emotions, behaviors, and attentional states.

In sum, we approach early development of self-regulation from rather different perspectives, providing the reader with new theoretical models, detailed methodological analyses, and new empirical data on the role of co-regulation and task demands for assessing self-regulation development in young children.

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