

Keep Calm and Carry On: Children's Self-Regulation in Early Years Settings

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Introduction

Early childhood education and care (ECEC) in Ireland promotes the development and education of children aged from birth to six years. Over a third of nine-month-olds and over half of three-year-olds experience some form of non-parental care in Ireland (Williams, Murray, McCrory and McNally, 2013), with type and duration of ECEC experiences varying considerably. However, almost all children aged between three and four years avail of the free pre-school year which was introduced in January 2010, administered by the Department of Children and Youth Affairs. Irish ECEC policy is developing rapidly. Responsibility for policy developments in the ECEC sector is shared by the Department of Education and Skills (DES) and the Department of Children and Youth Affairs (DCYA). Two key frameworks underpinning ECEC provision are *Síolta*, the national quality framework for Early Childhood Education (Centre for Early Childhood Development and Education, 2006) and *Aistear*, the early childhood curriculum framework (National Council for Curriculum and Assessment, 2009). Implementation of the early childhood curriculum is not mandatory, however, in ECEC settings (French, 2013).

Síolta and *Aistear* are related in goals and themes (NCCA, 2009): both frameworks highlight the period from birth to six years as a 'significant and distinct' time of development, emphasising the importance of adequate supports and resources during this period. The fourth *Síolta* principle clearly states the unique responsibility that adults in Early Years settings hold with regard to children's development: "Responsive, sensitive and reciprocal relationships, which are consistent over time, are essential to the wellbeing, learning and development of the young child." (CECDE, 2006). While *Síolta* and *Aistear* do not explicitly outline the mechanisms by which these relationships impact children's development, the research evidence for responsive and sensitive caregiving is expounded for practitioners elsewhere (see Hayes, 2013, for a comprehensive but accessible overview of research in this area).

Understanding *how* adults impact children's development in the early years is critical to successful implementation of practice recommendations. Much of the evidence in support of

positive adult-child relationships refers to the impact of environment on children's self-regulation processes. Self-regulation is considered a cornerstone of early childhood development (Shonkoff and Philips, 2000; Gillespie and Seibel, 2006; Meadows, 2009) and impacts significantly on a host of children's outcomes throughout the life course (Moffitt et al., 2011). Critically for ECEC professionals, the development of children's self-regulation is susceptible to the quality of the environment, making the provision of support and opportunities that help children self-regulate an essential element in quality ECEC (Shonkoff and Philips, 2000). The aim of this paper is to complement the current practice recommendations regarding the important role of the adult in young children's learning environments. It aims to do so by highlighting the mechanisms by which quality ECEC can positively impact self-regulation processes which are foundational for wellbeing and academic success throughout the lifespan.

Defining Self-Regulation

While there are various definitions of self-regulation (Duckworth and Kern, 2011), it is commonly understood as a set of complex processes that allow a child to respond appropriately and adaptively to their environment to achieve higher order goals (Tangney, Baumeister and Boone, 2004; Baumeister, Schmeichel and Vohls, 2013; McClelland, Geldhof, Cameron and Wanless, 2015). Self-regulation rests on a number of emotional and cognitive mechanisms, all of which may be influenced by the social context (Blair and Diamond, 2008).

Children's ability to self-regulate is recognised as a key predictor of a range of psychological and behavioural outcomes including academic success, social and emotional well-being, income level, and job satisfaction (e.g. Tagney et al., 2004; Moffitt et al., 2011; Converse, Piccone and Tocci, 2014). Conversely, difficulty in regulating behaviour is often cited as the root of a variety of social and psychological problems in later childhood and beyond (Dishion and Connell, 2006; Baumeister et al., 2013). Furthermore, children who cannot easily self-regulate are less likely to show resilience in adverse situations (Lengua, 2002; Wachs, 2006; Meadows, 2009).

Development of self-regulation

While all children develop their capacity to self-regulate over the first five years of life (Kopp, 1982; Posner and Rothbart, 1998; Blair and Diamond, 2008), they vary considerably in this ability (Eisenberg, 2012). This is likely due to a combination of biological (e.g. temperament), cognitive (e.g. executive control) and environmental factors which exert differing influences at different stages of development (McClelland et al., 2015).

Early self-regulatory tasks require children to control their emotional reactions (Eisenberg, 2012) which is impacted by temperament, or individual differences in responding to external or internal events (Thomas and Chess, 1977; Thompson, 2001). In particular, individual differences in reactivity and emotionality are associated with different regulatory outcomes, for instance in preschool classroom behaviour (Rimm-Kaufman and Kagan, 2005). Another core temperamental construct is “effortful control” which is related to low negative emotionality in childhood (Rothbart, Sheese, Rueda and Posner, 2011). In this framework, self-regulation is viewed as the set of processes that modulate reactivity, or the intensity to which a child responds to changes in their internal or external environment (Rothbart et al., 2011). Effortful control emerges between the ages of 6-12 months with considerable improvement by the age of 3 (Posner and Rothbart, 1998; Kochanska, Murray, and Harlan, 2000).

Regardless of temperamental differences, the ability to self-regulate rests on a number of cognitive processes, with executive functions, including attention and working memory, at the core (Baumeister et al., 2013). Such processes undergo rapid development in early childhood which contributes to improvements in self-regulating behaviour during this time (Blair and Diamond, 2008) as well as gains in effortful control (Rothbart et al., 2011). Since self-regulation relies on effortful cognitive processing, it can be viewed as a limited resource which can be depleted (e.g. due to environmental demands), or strengthened via practice (Baumeister et al., 2013). Not only does this highlight the relative plasticity of self-regulation, such research has positive implications for childcare settings. It follows that by providing opportunities to self-regulate, early educators can assist children in becoming more proficient in self-regulatory abilities. For example, as children grow in infancy and toddlerhood, adults can support emerging independence (and continuing dependence), through the inclusion of manageable challenges that promote healthy emotional and behavioural regulation (Shonkoff and Philips, 2000).

The Role of Adult-Child Relationships in Self-Regulation

Thus, while self-regulation depends on biological and cognitive factors, it is also clearly influenced by children’s environments. Indeed when examining task persistence, which is considered a behavioural measure of self-regulation, Deater-Deckard, Petrill, Thompson and DeThorne (2005) found characteristics of the early environment to be the most important influence in early childhood. Quality of parenting, including maternal sensitivity, (Kochanska et al., 2000; Kopp, 1982), attachment security (Kochanska, Philibert, and Barry, 2009) and

parenting styles (Belsky and Beaver, 2011), are known to impact on self-regulation and executive functioning from as early as 18 months of age (Bernier, Carlson and Whipple, 2010).

Taken together these findings highlight the potential for Early Years practitioners to nurture children's self-regulatory abilities. Early childhood is a crucial period for laying the foundations for self-regulation (Meyers and Berk, 2014) with a growing recognition that adults in early childcare settings play an important role in facilitating these skills (Bodrova and Leong, 2007; Florez, 2011). Researchers and practitioners recognise the importance of a goodness-of-fit with regard to acknowledging and responding to children's temperaments (Gillespie and Seibel, 2006) and suggest that by understanding the impact of temperament on self-regulation Early Years practitioners can best develop strategies that support self-regulation (Shonkoff and Philips, 2000). Explicitly considering temperamental differences and self-regulatory abilities helps maintain objectivity and understanding in responding to what may be considered more challenging behaviour or 'difficult' temperaments (Gillespie and Seibel, 2006). Adults in Early Years settings provide critical external support for self-regulation in early childhood: Early Years practitioners support babies' internal ability to regulate through consistent responsiveness (Perry, 2001) but also by offering young children opportunities to take responsibility for their own self-regulation as they become developmentally capable. In practical terms, this means observing, responding, providing structure and predictability, arranging developmentally appropriate environments, and defining age-appropriate limits, while showing empathy and caring (see Hayes (2013) for practice applications).

Conclusion

Self-regulation is a cornerstone of early childhood development and plays a key role in resilience, enabling children from diverse backgrounds to reach similarly positive outcomes (McClelland et al., 2015). The literature discussed provides clear evidence that caring, consistent relationships with adults enhance self-regulation by supporting the development of persistence, attention and the ability to cope with emotional arousal associated with working through challenges (Bandura, 1997; Dweck, 1999).

It is particularly important to highlight individual differences in temperamentally-based self-regulation in the context of Early Years settings in order to show that children vary in their development of these important skills and that responsive caregiving can make a significant difference. The growing policy focus on quality in Early Years settings, in conjunction with new evidence emerging from the Growing Up in Ireland study (see www.growingup.ie for

more details), provides an unprecedented emphasis on the influence of early childhood environments and adult-child interactions, individual differences in early childhood, and children's outcomes. This work supplements the wealth of international evidence on the role of temperament, self-regulation and responsive caregiving on children's development in the early years and highlights how adults in Early Years settings are in a pivotal position to help young children self-regulate. This will in turn have a significant impact on numerous outcomes such as school readiness, social competence and psychological well-being.

References

- Bandura, A. (1997) *Self-Efficacy: The Exercise of Control*, New York: Freeman.
- Baumeister R.F., Schmeichel B.J., Vohs K.D. (2013) Self-Regulation and the Executive Function: The Self as Controlling Agent. In Kruglanski A., Higgins E.T. *Social Psychology: Handbook of Basic Principles* (2nd ed.) New York: Guilford, pp. 516–539.
- Belsky, J., and Beaver, K. M. (2011) Cumulative Genetic Plasticity, Parenting and Adolescent Self-Regulation, *Journal of Child Psychology and Psychiatry*, 52(5), pp. 619-626.
- Bernier, A., Carlson, S. M., and Whipple, N. (2010) From External Regulation to Self Regulation: Early Parenting Precursors of Young Children's Executive Functioning, *Child Development*, 81(1), pp. 326-339.
- Blair, C., and Diamond, A. (2008) Biological Processes in Prevention and Intervention: The Promotion of Self-Regulation as a Means of Preventing School Failure, *Development and psychopathology*, 20(03), pp. 899-911.
- Bodrova, E., and Leong, D. J. (2008) Developing Self-Regulation in Kindergarten, *Young Children*, 63(2), pp. 56-58.
- Centre for Early Childhood Development and Education (2006). *Síolta: The National Quality Framework for Early Childhood Education*, Dublin: Centre for Early Childhood Development and Education.
- Converse, P. D., Piccone, K. A., and Tocci, M. C. (2014) Childhood Self-Control, Adolescent Behavior, and Career Success, *Personality and Individual Differences*, 59, pp. 65-70.
- Deater-Deckard, K., Petrill, S. A., Thompson, L. A., and DeThorne, L. S. (2005) A Cross-Sectional Behavioral Genetic Analysis of Task Persistence in the Transition to Middle Childhood, *Developmental Science*, 8(3), pp. F21-F26.

Dishion, T. J., and Connell, A. (2006) Adolescents' Resilience as a Self-Regulatory Process, *Annals of the New York Academy of Sciences*, 1094(1), pp. 125-138.

Duckworth, A. L., and Kern, M. L. (2011) A Meta-Analysis of the Convergent Validity of Self-Control Measures, *Journal of Research in Personality*, 45(3), pp. 259-268.

Dweck, C.S. (1999) *Self Theories*, Hove: Psychology Press.

Eisenberg, N. (2012) Temperamental Effortful Control (Self-Regulation), *Encyclopedia on Early Childhood Development*, Available online at <http://www.child-encyclopedia.com/temperament/according-experts/temperamental-effortful-control-self-regulation>

Florez, I. R. (2011) Developing Young Children's Self-Regulation through Everyday Experiences, *Young Children*, 66, pp. 46-51.

French, G. (2013). Aistear – A journey without a road map, In *Childlinks*, Summer 2013, Barnardos.

Gillespie, L. G., and Seibel, N. L. (2006) Self-Regulation: A Cornerstone of Early Childhood Development, *Young Children*, 61, pp. 34-39.

Hayes, N. (2013) *Early Years Practice: Getting it Right from the Start*, Gill and McMillan Ltd.

Kochanska, G., Murray, K. T., and Harlan, E. T. (2000) Effortful Control in Early Childhood: Continuity and Change, Antecedents, and Implications for Social Development, *Developmental psychology*, 36(2), pp. 220.

Kochanska, G., Philibert, R. A., and Barry, R. A. (2009) Interplay of Genes and Early Mother–Child Relationship in the Development of Self-Regulation from Toddler to Preschool Age, *Journal of Child Psychology and Psychiatry*, 50(11), pp. 1331-1338.

Kopp, C. B. (1989) Regulation of Distress and Negative Emotions: A Developmental View, *Developmental Psychology*, 25(3), pp. 343.

Lengua, L. J. (2002) The Contribution of Emotionality and Self-Regulation to the Understanding of Children's Response to Multiple Risk, *Child Development*, 73(1), pp. 144-161.

McClelland, M. M., John Geldhof, G., Cameron, C. E., and Wanless, S. B. (2015) Development and Self-Regulation, *Handbook of Child Psychology and Developmental Science*. Wiley Online Library.

Meadows, S. (2009) *The Child as Social Person*, Routledge.

Meyers, A., and Berk, L. (2014), Make-Believe Play and Self-Regulation. In L. Brooker, M. Blaise, and S. Edwards (Eds.), *The SAGE Handbook of Play and Learning in Early Childhood*, London: SAGE Publications Ltd, (pp. 43-56).

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., and Caspi, A. (2011) A Gradient of Childhood Self-Control Predicts Health, Wealth, and Public Safety, *Proceedings of the National Academy of Sciences*, 201010076.

National Council for Curriculum and Assessment (2009) *Aistear: The Early Childhood Curriculum Framework*, Dublin: National Council for Curriculum and Assessment.

Perry, B.D (2001) Self Regulation: the Second Core Strength, *Scholastic Early Childhood Today*, 16(3), pp. 20 – 21.

Posner, M. I., & Rothbart, M. K. (1998) Attention, Self-Regulation and Consciousness, *Philosophical Transactions of the Royal Society B: Biological Sciences*, 353(1377), pp. 1915-1927.

Rimm-Kaufman, S. E., and Kagan, J. (2005) Infant Predictors of Kindergarten Behavior: The Contribution of Inhibited and Uninhibited Temperament Types, *Behavioral Disorders*, pp. 331-347.

Rothbart, M. K., Sheese, B. E., Rueda, M. R., and Posner, M. I. (2011) Developing Mechanisms of Self-Regulation in Early Life, *Emotion review*, 3(2), pp. 207-213.

Shonkoff, J.P. and Phillips, D.A. (Eds.). (2000) *From Neurons to Neighborhoods: The Science of Early Childhood Development*, Washington, D. C.: National Academy of Sciences.

Tangney, J., Baumeister, R. F., and Boone, A. L. (2004) High Self Control Predicts Good Adjustment, less Pathology, Better Grades, and Interpersonal Success, *Journal of Personality*, 72, pp. 271-324.

Thomas, A., and Chess, S. (1977) *Temperament and Development*, Brunner/Mazel.

Thompson, R. A. (2001) Development in the First Years of Life, *The Future of Children*, pp. 21-33.

Wachs, T. D. (2006) Contributions of Temperament to Buffering and Sensitization Processes in Children's Development, *Annals of the New York Academy of Sciences*, 1094(1), pp. 28-39.

Williams, J., Murray, A., McCrory, C., and McNally, S. (2013) *Growing Up in Ireland National Longitudinal Study of Ireland: Development from Birth to Three Years Infant Cohort*. Dublin: Department of Children and Youth Affairs.