The concept of autonomy has received considerable attention in both philosophy and psychology. From the perspective of philosophy, autonomy refers to self-governance of one’s actions. In psychological theory, the focus has been more on human beings striving to experience autonomy and self-determination. In this entry, we will examine the elusive concept of autonomy from different theoretical angels and focus in particular on how autonomy emerges through social interactions and how it develops over the course of the lifespan. We will pay special attention to the role autonomy plays in creativity and the exploration of the possible.

**Keywords**
Autonomy · Agency · Social interactions · Creativity · Possible

People can be self-driven, taking initiatives and shaping their own environment, or they can be helpless or hesitant, governed by authorities and unable to make their own decisions. What exactly does autonomy entail, and how does autonomy play a role in interacting with the possible? Is autonomy a more or less stable personal characteristic, or is it different in different situations?

In this entry, we will discuss the well-known yet elusive concept of autonomy both from philosophical and psychological perspectives. We will briefly discuss the empirical research on how autonomy might be a central feature of “being human” and of human’s psychological thriving. Autonomy will be discussed further not only as a central human “trait” or characteristic, but more as an enacted, dynamic property that emerges in the interactions humans have with their social and material environment. This will bring us to connecting autonomy not only to the interaction with the “here-and-now” but also to the interaction with the possible and with creative processes.

**Different Theoretical Perspectives on Agency and Autonomy**

Both agency and (personal) autonomy have been explored extensively in philosophy. “An agent is a being with the capacity to act, and agency is the manifestation of this capacity” (Schlosser 2019, p. 1). According to some definitions, agency can only be called agency if it is fully intentional, driven by intentions or desires, and in line with one’s attitudes. That would imply that only
humans can act with full (or higher-order) agency. However, agency can also be seen in a broader sense. Not only (human) mental states such as beliefs and motives can be a cause for action, but also drives such as hunger or aggression. That would mean that agency is not a uniquely human concept and can also be displayed by non-humans.

One widely agreed upon part of the definition of agency is that agency involves the *initiation of action* by an agent. It is exactly this initiation part of the definition that links agency to autonomy. An agent is one who acts; autonomous agents are self-governing agents. Because no one else can initiate actions other than the agent herself, all agents can be said to exercise self-governance or autonomy (Buss and Westlund 2018). But what does self-governance entail exactly? Sometimes one is forced to do something by some external authority. Sometimes someone does something “in spite of herself,” as a result of internal conflicting forces, such as a recovering addict pouring herself a drink, although she had sworn to never to drink again. Although an action cannot be performed without it being initiated by the agent, there are certainly cases where this self-governance is at a bare minimum because the behavior is determined not by the agent’s own (conscious) motives but by other forces. In such situations, autonomy in the sense of self-governance is merely a formality.

In the area of psychology, autonomy has been known through the theoretical work on personal causation (de Charms 1968) which was later further developed in self-determination theory (Deci and Ryan 1985, 1991). De Charms observed, as we will discuss further down this entry, that human beings develop from not being able to distinguish between the self and others, to discovering more and more their capacity to exert effects in their environment. Psychology on motivation had, until then, mainly focused on goals that people set for themselves and the efforts they exert to obtain these goals. De Charms saw the *desire* that human beings have to be causal agents as the underlying principle underneath specific goal setting and goal-directed behavior: “Man’s primary motivational propensity is to be effective in producing changes in his environment” (de Charms 1968, p. 269). As a consequence, he also saw a crucial role for the *experience* of causal agency in one’s behavior. In other words, it does not really matter whether, in a given situation, there was true self-governance over one’s behavior, as long as the person experienced a sense of freedom and autonomy in determining their own actions. The attribution of causes is important: persons can perceive themselves as causal agents (or “origins” as De Charms puts it) or as being governed and “pushed around” by external forces (as “pawns”). This perception of self-governance or autonomy can differ per person, but also within persons. One can feel an autonomous agent in one situation and a helpless pawn in another.

Following the work of De Charms, self-determination theory embraced the perception of autonomy as a key feature in distinguishing between different kinds of motivation. Types of motivation can be placed on a continuum ranging from being completely extrinsic (such as acting upon reward or punishment) to being more internalized. The most optimal form of motivation is motivation that is truly intrinsic and in accordance with one’s own motives and desires. The theory further states that in order to achieve this kind of intrinsic motivation, three basic psychological needs have to be met: the need for autonomy, competence, and relatedness. The need for autonomy refers to the need to have a sense of control over one’s actions, to not be passively “steered” by others in one’s environment but instead to feel self-driven; to act in accordance with one’s sense of self. The other needs are the need for competence, which refers to the need to feel able to reach the goals one has set for herself and the need for relatedness, which refers to the universal human need for a sense of belonging to one’s social environment, to make deep and meaningful connections to the people around oneself. The needs are not entirely separate; indeed, the need for autonomy is “woven into” the other two needs. For the need of competence, for example, only goals that are autonomously chosen or embraced by oneself, truly result in feelings of genuine competence. Autonomy can be said to be the underlying dimension that gives fulfillment of
the other two needs true meaning (Deci and Ryan 1985, 1991).

The fundamental difference between the philosophical and the psychological perspective on autonomy is that self-determination theory (or the psychological perspective) is mainly or exclusively interested in the extent to which human beings experience autonomy, regardless of the more philosophical question of whether humans are in fact self-driven. Consider the extent to which a student in a classroom feels autonomous. Instead of the teacher giving one assignment for all students, she lets the students choose whether they want to complete the standard test on the subject, or whether they want to challenge themselves more by making a more complex assignment. The student chooses the challenging assignment and completes it successfully. A philosopher might comment that this situation still poses many constraints (the choice of the student might be random instead of fully intentional, many of the choices are already imposed by the way the educational system works, the teacher only provides two choices, and perhaps she might even subtly nudge the more accomplished students towards the more challenging assignment). That would mean that the student’s actions and choices are not truly self-governed and therefore not completely autonomous. From a psychological perspective, although the environmental constraints and enablers are certainly noticed and subject of investigation (see later on in this entry) what in the end matters is whether the student experiences a sense of autonomy in this situation.

The Development of Autonomy

Research in developmental psychology, most notably the fundamental work of Piaget, sheds light on how we develop into more or less autonomous individuals. The foundations for agency lie early in infancy (Siegler and Alibali 2005). Piaget stated that the newborn is mainly governed by reflexes, but that their actions soon, already after the first months, become more and more intentional. After a few months, infants already show a very rudimentary form of agentic action. They perform an action; feeling a blanket, grasping their parent’s finger, experience the sensation, and repeat it. Piaget called these “primary circular reactions.” Later, after about 4 months of age, these cyclical actions are expanded to not only their own bodies (feeling, grasping), but also the world around them (for instance, kicking a mobile, watching it move, kicking again). Although it would be too early to ascribe goals to infants, in their repetition of manipulations to the world around them already a very rudimentary, embodied sense of agency emerges. The agentic actions are still very much connected to the here-and-now and elicited directly by aspects of the physical world close to them. These agentic attempts become more precise, elaborate, and coordinated over time.

An important change occurs around 12 months of age, when young toddlers begin to intentionally vary their behaviors: when they drop a ball on the floor repeatedly, for instance, they alter the altitude of the fall, alternate between dropping and more forcefully throwing behaviors to observe the different effects. This change is especially relevant when linking agency to the possible: by varying their actions intentionally, children explore what could be done with an object, rather than repeating intentionally what has been done before. They seem interested to find out what variations produce different effects. Indeed, divergent thinking tests have been developed for children as young as 2 years old where divergent thinking is operationalized in a non-verbal and embodied way, as the extent to which children vary their agentic actions and explore “new” possibilities of objects through these actions (Bijvoet-van den Berg and Hoicka 2014). New has to be seen in the “mini-c” meaning of the word, that is, a new discovery for the child herself but not necessarily for others. This interaction with the possible, but still very much grounded in the physical and social environment of the here-and-now, is the prelude to the development of pretend play, where children explore possibilities that are more and more moving away from the current, grounded reality and more towards stretching the
boundaries of reality and (im)possibility (the block of wood is a car, I am a dinosaur).

Next to the developing capacities to act more and more agentically, in interaction with the current and the possible, there is also an increased desire to act autonomously throughout childhood and adolescence. In fact, one might think of child development as an increasing exploration of who one is, and what one can do, by themselves and out of their own choice. This striving is more pronounced in some developmental phases than in others (and of course, more pronounced in some children than in others). Parents will recognize the infamous “terrible twos” as a period where children are often exercising their autonomous will and desire to practice with capacity for self-governance (expressed by saying “no” to their parents’ demands and “I do it myself” often). Another developmental phase that is known for the desire for increased autonomy is of course adolescence. In this phase, the child is able to see more and more possibilities for oneself, and is more conscious of the different possibilities for identity development, increasingly independent of their parents. Their exercising autonomy and desire for more self-governance fits that picture (McElhaney and Allen 2012).

**Autonomy as Socially Constructed**

Autonomy does not develop in a social vacuum. Rather, there are many constraints and enablers within any given situation that either allow the emergence of a deep sense of autonomy or that can in contrast hinder one’s feeling of autonomy. In theory and research on autonomy, much emphasis has been laid upon social influences on (perceived or observed) autonomy.

In Interpersonal Theory, agency is viewed as one of two core dimensions of people’s interpersonal behavior. In interactions between two (or possibly more) people, the persons engaging in interaction display agency in their behaviors to some extent. In the interpersonal sense, the emphasis is not so much on the extent to which behavior is truly self-governing, but more on agency relating to roles in the interpersonal interaction. An important principle here is complementarity on the agency dimension (Gurtman 2001). One of the parties is initiating, leading, proposing, which elicits following, listening, or undergoing behavior from the other person. Importantly, although persons can develop a “style” of interacting with others, recent research shows this enacted agency in interpersonal interactions is dynamic and fluid; a person can be leading in one moment and following in the next, much like a dance where the roles are not fixed and leading and following alternate (Sadler et al. 2009; Pennings et al. 2014). Interestingly, research on patterns in interpersonal interaction also shows that occupying alternating roles in interaction give rise to exploring possible states of interacting with one another, and that more flexible dyadic interaction patterns where multiple possible states of communication are explored give rise to more advantageous outcomes (Granic et al. 2007), although studies on these mechanisms relating this specifically to autonomy are currently lacking.

Concluding, autonomy can be seen as a state rather than a trait, and more specifically, a state of being that emerges through co-regulated social interaction. The experience of autonomy, therefore, has its roots in these emergent social interactions, characteristics of which can either enhance or inhibit the personal experience of autonomy. It is perhaps not surprising that a great deal has been done to uncover how autonomy can best be promoted or cultivated, in particular in education, parenting, and in work environments.

**Cultivating Autonomy**

A large body of research on how to cultivate autonomy exists especially in the area of education. Teachers and other significant figures in children’s environments, through their interactions with students, can support students’ autonomy in order to stimulate their motivation, agency and engagement with tasks in a meaningful way (e.g., Reeve et al. 2004; Reeve 2009; Vansteenkiste et al. 2005; Cheon et al. 2020).
Although autonomy refers to the feeling that one’s actions emanate from oneself and are one’s own (Deci and Ryan 1987, p. 1025), students are in many situations still dependent on support from a more competent other (Ryan and Deci, 2006). The example at the beginning of the entry, of the student being able to choose their own assignment, is one illustration of how autonomy can be fostered by the teacher who at the same time provides structure by narrowing down to two relevant options.

“Autonomy support” refers to an interpersonal approach taken to help students experience learning as relevant to their self-determined goals and interests and to help them realize these goals and interests (Assor et al. 2002). Autonomy support nurtures students’ meaningful engagement with tasks and stimulates their agency in several interrelated ways. Stefanou et al. (2004) distinguish among organizational, procedural and cognitive autonomy support and stress the importance of the latter. First, autonomy support is student-centered and entails offering students the space for their own discoveries (Deci et al. 1994). This involves questioning and inviting students to explore and provide time for this. Stefanou et al. label this approach cognitive autonomy support as it provides students ownership of their learning. Offering time to think and observing students while they are exploring, affords teachers to monitor the learning process and ask relevant follow-up questions. Secondly by providing organizational autonomy support (Stefanou et al. 2004) teachers can provide students with ownership of environment by offering them relevant choices concerning with whom or where to work, implementation of criteria and rules, and so on. Offering procedural autonomy support generates ownership of form and this involves a.o. choice in tasks, materials, task approach and how to display results. Third, autonomy support is associated with welcoming, informational and non-controlling language (Reeve 2009) which expresses showing respect to students (Stroet et al. 2013). Supporting children’s autonomy this way encompasses stimulating children to imagine possibilities and engage in meaningful activity in a creative process where goals are emerging and are taking shape, along with the material results of their endeavors.

Despite the benefits of autonomy support shown in research in educational settings, teachers tend to adopt a low-autonomy supportive, controlling style of teaching during instruction time (Reeve 2009). A controlling style is teacher-centered and involves imposing the teacher’s own perspective on students’ thoughts, feelings and/or actions, as well as the exercise of pressure (Reeve 2009).

Autonomy, Creativity, and the Possible

As stated before, a key feature of the development of human autonomy involves the agentic exploration of the possible. The discovery of having control over oneself, and the ability to manipulate the environment goes hand in hand with the exploration of the different possibilities of exercising this agency: first embodied in the manipulation of the physical world, but soon already in pretend play and hypothetical thinking. Linking this to creativity, we can see clear relationships between the agentic exploration of the possible, real or imagined, and idea generation (see Creativity, this volume). Continuing this reasoning, we can see divergent thinking as agentic exploration of the possibilities that are the least obvious.

The concept of “possibility thinking” was coined in the early 2000s to describe the practices children and teachers engage in in classrooms and which are believed to be key to creative thinking in schools. Possibility thinking comes down to a shift between focusing on “what is this and what can it do” to “what could this be and what could I do with it.” Possibility thinking includes posing questions, engaging in play, immersion and making connections, being imaginative, innovation, risk taking, and self-determination (Cremin et al. 2006; see also Possibility Thinking, this volume). By engaging in possibility thinking, the child is agentically engaged in exploring possibilities and generating novel ideas. However, creativity encompasses more than just the stage of idea generation. Just as agency in interpersonal
communication involves an alternating dance between leading and following, creativity involves both being pro-active and agentic, initiating actions and ideas, but also listening to others, observing, evaluating (especially in collaborative forms of creative performance, such as jazz, dance, and theatre improvisation, see Sawyer (2000)). Indeed, even professional creatives working alone describe being “taken over” by their own work of art, and being in a flow where they follow the lead of the creative work-in-progress. (see, Inspiration, this volume).

The literature on stimulating possibility thinking and creativity in education shows remarkable resemblance with the literature on autonomy support. Profiling learner agency is key in fostering creativity: students should be provided with multiple opportunities where they can initiate their own actions, students are encouraged to be active and independent, to take risks and to experiment (Cremin et al. 2006; Sawyer 2017). In classrooms where creativity blossoms, the usual classroom dynamic where the teacher is the authority figure and students are following, is abandoned. Instead, pedagogy is student-led rather than teacher-led and teachers often consciously “stand back” to let students figure things out for and among themselves.

But also here, there is more to it than just providing a lot of autonomy support for students to not only engage with the possible at the level of exploration, but also at the level of deeper engagement with possibility and creative ideas. Sawyer (2017) notes the tension that exists between allowing students freedom and standing back on the one hand, and providing structure and guidance on the other hand. Not all students fare equally well with completely open-ended assignments and ill-defined problems. The careful balance between fostering students’ autonomy at the right times and putting in boundaries, constraints, and evaluations is necessary for “productive” and deep exploration of different possibilities. This providing structure could on the one hand help to narrow down an overwhelmingly large landscape of endless possibilities. On the other hand, the teacher can also help by guiding students into exploring a broader horizon of possibilities than they had imagined by themselves.

**Summary**

To conclude, autonomy is a key element of engaging with the possible. Agentic exploration of the possible, in interaction between oneself and one’s physical and social environment, is a cornerstone of human functioning and development from a very early age onwards. The desire to experience autonomy in one’s actions is uniquely human and an important drive behind exploration of the possible. That does not mean that agency should be experienced all the time. In interaction with the here-and-now, as well as in interaction with the possible, agency and autonomy can be seen as a dance where leading and following alternate.

**References**


