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RESEARCH ARTICLE



## The pleasure of thinking in human development

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### ABSTRACT

Observing children and scientists clearly suggests that people may experience pleasure in thinking. Surprisingly, pleasure is rarely addressed in developmental psychology. The argument of the paper is that pleasure of thinking may play an important role in learning and development; it draws on secondary analysis of existing studies and theoretical work to ground this proposition. The paper first draws on classical observations of young children to highlight five modalities of pleasure in thinking: curiosity, functional pleasure, discovery, dialogical pleasure, and a meta-pleasure. It then examines the becoming of these pleasures during the school years, highlighting the conditions for these pleasures to develop. The paper then suggests that such pleasure can be pursued and cultivated during adulthood. Theoretical and empirical implications are finally highlighted.

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Children discovering the world are interested, concentrated, and often smile and laugh. Alone or with others, they explore objects, they try things out, they are excited by something new, or want to know why this or that. Adolescents discover the pleasure of debating or can be absorbed in intense thinking. Adults also know the tension of pursuing a line of thought, and the rare joy of having solved a difficult issue. Hence, people of all age seem to experience, in various forms, the pleasure of thinking. In this paper, which has an integrative and programmatic scope, I argue that the pleasure of thinking plays a key role in learning and development all life-long.<sup>1</sup>

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<sup>1</sup>This paper is based on a keynote lecture invited at the European Conference on Developmental Psychology (ECDP), Turku, Finland, August 27-September 1st. The keynote itself is based on the recently published book *The pleasure of thinking* (Zittoun, 2024). I thank here the conference organizers for their kind invitation, and the Editor of this journal for his invitation to submit the present paper.

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After the presenting theoretical and methodological assumptions of such endeavour, I re-examine a few studies in learning and developmental psychology to retrace the emergence of pleasure of thinking in children and to follow its evolution at school; I then explore the pleasure of thinking in the development of adults. To conclude, I highlight some theoretical and empirical implications.

## 1. A sociocultural approach to psychological development

To apprehend the pleasure of thinking, I adopt a sociocultural perspective in psychology. Sociocultural psychology is a wide theoretical frame (Kirschner & Martin, 2010; Rosa & Valsiner, 2018), partly overlapping cultural cultural-historical, or dialogical approaches in psychology. Like these, it admits an affiliation to Vygotsky and post-vygotskian studies, acknowledging the importance of social and cultural dynamics in human development. It also draws on post-piagetian studies and general developmental approaches. From there, I admit a series of assumptions that meet other fields of psychology.

First, at a meta-theoretical level, sociocultural psychology admits an open dynamic systemic approach to development (Fogel et al., 2008; van Geert, 2019; Witherington & Boom, 2019). Here, with many authors, I admit that there is a tendency to develop in the child (Perret-Clermont, 2015; Siegel, 2020; Stern, 2010). Second, it assumes the embodied nature of thinking: it is by the children's actions in their sociomaterial world and the reaction of the environment that mind develops – mainly, in triadic encounters, that is, interactions with things and with significant others (Hinde et al., 1985; Nelson, 2007; Trevarthen, 2012). It therefore admits the crucial role of others in the experience and regulation of affects (Fonagy et al., 2005; Stern, 1998). Sociocultural psychology has particularly shown the importance of social interactions and dialogue in learning and development, and the modalities of these interactions and dialogical dynamics (Mercer, 1998; Psaltis et al., 2015; Rodriguez, 2007; Valsiner, 1987). More specifically, fourth, with others, sociocultural psychology considers that semiotic mediation, the use of signs – from non-verbal cues to complex linguistic systems – plays a key role in the development of understanding, thinking, and affects (Rodriguez, 2007; Säljö, 2021; Siegel, 2020). Research has thus highlighted complex processes by which thinking and emotional experience progressively develop, in dyadic or triadic dynamics, such as mentalization, epistemic trust,

conventionalization, and many others (Gergely, 2007; Rodriguez & Moro, 2008; Rodriguez et al., 2018). Fifth, as developmental psychologist, I will follow the propositions made by Werner and Kaplan (1963), later confirmed (Müller et al., 2013; Tartas et al., 2016; Valsiner, 2021), which show that through their transactions with their world, children's activity, thinking and feeling, progressively differentiate and get organized and hierarchized. Children and adults thus construct, through development, progressively stabilized sets of experiences, semiotically mediated, which can be more or less abstract and detached from the immediacy of the senses. Sixth, drawing on Vygotsky, sociocultural psychology emphasizes the role of meaning-making: people can engage in activities that make personal sense to them, sense that is negotiated in relation to socially shared meanings (Kumpulainen et al., 2014; Rochex, 1998; Zittoun, 2016). Seventh, our own work has shown the role of imagination in activities of learning and thinking – in intersubjective dynamics, scientific reasoning, sense-making, and daydreaming (Hilppö et al., 2016; Zittoun & Cerchia, 2013; Zittoun & Gillespie, 2016).

Within this framework, by 'thinking', I will designate an *activity* which demands a form of disconnection from action and immediate experience; it is semiotically mediated, related to meaning-making, and it involves binding experience in time and across domains (Arendt, 1978; Dewey, 1910; Hacker, 2013). By 'pleasure', I will generically designate a dynamic tension seeking an object, which may generate a positive affective experience, in itself, or when reaching its object.<sup>2</sup> Most sociocultural and developmental studies mentioned here implicitly or explicitly admit the role of affects in human development; very few examine their role in the development of thinking itself. However, there is no reason to think that affects do not follow the same developmental route than other functions or capacities. One can thus have very immediate affects, as well as complex, semiotically mediated emotions (Valsiner, 2021). From such perspective, one can admit that the curiosity and pleasure of a five-year-old discovering a beautiful beetle is comparable to the curiosity and pleasure of a mathematician facing an anomaly in an equation; only the latter takes place via the mastery of a very complex semiotic system. It is with such

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<sup>2</sup>Thinking has been a widely studied and discussed concept in philosophy and psychology, and it is beyond my scope here to review these approaches; note however that it has progressively disappeared from handbooks and manuals in psychology to be replaced by cognition, or more specific functions. It is thus deliberately that I chose a wide definition of thinking, so as to encompass processes such as reasoning, sense-making and daydreaming: all engage semiotic elaboration yet are submitted to different degrees of internal and cultural formalization (for a full discussion see Zittoun, 2024).

idea in mind that I propose to explore some of the literature on learning and development, searching for indications of pleasure and its variations.

The core propositions of this paper are, first, that pleasure plays an important role in thinking; second, that the pleasure of thinking develops along other skills and competences in time; and third, that the pleasure of thinking is composed of five main modalities, each of them likely to occur in simple or more elaborated ways, and likely to combine: the pleasure of surprise, the functional pleasure of being engaged into a thinking activity, the pleasure of discovery, the dialogical pleasure of thinking with real or imaginary others, and the meta-pleasure of being aware of one's thinking.

The first scope of the paper is thus integrative, aiming at overcoming some fragmentation in psychology, as I identify common threads through a wide range of approaches (Valsiner, 2006; Zittoun & Cabra, 2022). The present propositions thus emerged through an abductive process, thanks to a dialogue between theoretical propositions in developmental psychology, sociocultural psychology and psychoanalysis, and the secondary analysis of ideographic observational, ethnographic and/or longitudinal qualitative case studies, classical and more recent (Peirce, 1878; Valsiner, 2017; Zittoun, 2017). More specifically, the studies presented here were considered for the present enquiry because (i) they include rich qualitative longitudinal data open to secondary analysis and are available to the curious reader; (ii) the data contains situations in which various modalities of pleasure of thinking are displayed and can be identified by direct and indirect cues (Zittoun, 2024).<sup>3</sup> Second, the proposition is expressed in general theoretical terms, as another scope of the paper is programmatic: it is an invitation to give more importance to the pleasure of thinking in research in learning and development, both theoretically and empirically.

## 2. The emergence of the pleasure of thinking

In this section, I retrace the emergence of pleasures of thinking in the works of Jean Piaget and of Susan Engel.

Like Charles Darwin (1877), Jean Piaget he proposed very rich and detailed observations of his children, and was attentive to smiles, laughter, and other forms of externalization of positive affects, which he considered as cues of developmental dynamics.

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<sup>3</sup>The example presented here are either paradigmatic or strong enough to represent other studies considered in the background work of the present paper; authors themselves may, or not, have explicitly addressed and named modalities of pleasure of thinking (Zittoun, 2024).

In *The origin of intelligence* (Piaget, 1952) (originally 1936), Piaget argues that children's smiles are foremost an indication of recognition 'to a familiar scene, to the *déjà vu*, in so far as known objects suddenly reappear and thus trigger emotion, or when such scene gives rise to immediate repetition' (Piaget, 1998, p. 70 my translation). Piaget considers smiles as cues of *assimilation* – turning newness into what is known, the process to be combined with *accommodation*, changing one's understanding or schemes, to adjust to newness, for development to occur. Based on this principle, in *Play, dreams, and imitation in childhood* (Piaget, 1999) (originally 1945), Piaget's observations take in account the pleasure manifested by children who play, laugh, and are manifestly enjoying or pleased.

First, Piaget identifies situations in which the child smiles recognizing *someone or something known*, as here:

OBS. 6. At o; 1 (30) I moved my head from left to right in front of him, saying 'ta, ta, ta, ta' (twice to the left and twice to the right). [T] gazed at me and followed my movements. When I stopped, he made a few sounds, smiling as he did so, then seemed to make some movements of the head to continue the accommodation. (Piaget, 1999, p. 12)

A little bit older, another infant smiles at her own view in the mirror:

Obs 44. From 1; 0 (10) onwards, J. was put from time to time in front of a large mirror set up at the end of the cot in which she was sitting. After a few moments of surprise, she showed great pleasure at the sight of her reflection. She waved at it, waved harder when she saw her double repeating her gesture, smiled, held out her arms, etc. (Piaget, 1999, p. 56)

Thus, recognizing a person, a movement or oneself is pleasurable. Second, Piaget identifies the pleasure coming from merely repeating a pleasant activity – which he calls a *functional pleasure*, after Bühler ('*Funktionslust*') (Piaget, 1999, p. 90). This is manifested as follows:

OBS. 59. (. . .) T., at o; 2 (21), adopted the habit of throwing his head back to look at familiar things from this new position (see NJ., obs. 36). At o; 2 (23 or 24) he seemed to repeat this movement with ever-increasing enjoyment and ever-decreasing interest in the external result: he brought his head back to the upright position and then threw it back again time after time, laughing loudly. In other words, the circular reaction ceased to be 'serious' or instructive, if such expressions can be applied to a baby of less than three months, and became a game. At o; 3 T. played with his voice, not only through interest in the sound, but for 'functional pleasure,' laughing at his own power. (Piaget, 1999, p. 91)

Third, Piaget identifies the '*pleasure of being the cause*' and of simply doing an *activity in itself* and without goal, requiring the separation of the interiorized meaning of an actual object under a symbolic form; he gives as example his daughter discovering the pleasure of playing at sleeping. Piaget finally mentions the pleasure of creating something, visible in playfulness, which appears when the child 'having learned to ask questions, especially "why", (...) amuse himself by asking questions for fun (...). He may also tell a story without a head or tail merely for the pleasure of combining chance words and concepts, or he may make up a story just for the pleasure of making it' (Piaget, 1999, p. 117).

Focused on assimilation, Piaget did not identify two other pleasures present in his observations. First, all these interactions are shared with an adult – e.g., Piaget pulling his tongue out and manifestly playing with the child; there is definitely a *dialogical* component to the pleasure. Second, there is an interesting moment where L. realizes that she can play at sleeping:

OBS. 65. L. (...) was sitting in her cot when she unintentionally fell backwards. Then seeing a pillow, she got into the position for sleeping on her side, seizing the pillow with one hand and pressing it against her face (...). She remained in this position for a moment, then sat up delightedly. During the day she went through the process again a number of times, although she was no longer in her cot; first she smiled (this indication of the representational symbol is to be noted), then threw herself back, turned on her side, put her hands over her face as if she held a pillow (though there wasn't one) and remained motionless, with her eyes open, smiling quietly. The symbol was therefore established. (Piaget, 1999, pp. 96-97)

In this scene, L. seems to smile inwardly when she realizes that she can play; this resembles what Darwin identified as a smile turned to oneself in his infant son, *as if pleased by a good idea - a meta-pleasure*.

Piaget identified pleasures of thinking in recognition, function, being the cause, exploring, and we also saw a dialogical and a meta-pleasure. After Piaget, there have been discussions on whether smiles indicate recognition (Watson, 1972; Zelazo, 1972), accommodation, or simply pleasure (Haith, 1972). More recent studies emphasize the role of surprise in children's development. Surprise may be triggered by 'ruptures' in well trained or anticipated slightly repetitive actions or 'gaps' which in the smooth modification of rhythm of modality (Marcelli, 2007); surprise thus appear to play a key role in intersubjectivity (Stern, 2010; Trevarthen, 2012), language acquisition (Harris, 2020) or humour in children

(Mireault & Reddy, 2016) – all playing a key-role in development. In particular, surprise can be seen as the beginning of curiosity, which can be pleasurable, and will then trigger exploration and learning (Engel, 2015).

Susan Engel (2015, 2021) thus compiled studies showing that children develop curiosities and interests at a very young age; when cultivated, these can develop life-long interests (Jirout, 2020; Jirout & Klahr, 2012). This is visible in the case of the development of Addie, which Engel uses as fil rouge to her demonstration.

At two years of age, on a walk with adults, Addie stops, fascinated by a red leaf; she collects it, stands up, looks around for other leaves; seeing another one, she crouches down, and ‘with no hesitation, she held it up in one hand, alongside the original leaf in the other, and studied the two selections’. Engel comments ‘Not yet three, she had curated a collection’ (Engel, 2021, p. 16), as sign of early curiosity and spontaneous enquiry. Aged 4, Addie stumbles over a large beetle; her father explains that is a June bug, which flies; a few days later, in kindergarten, she sees an insect interested by her fruit, and shouts ‘June bug!’; the teacher corrects, saying it is an ant – so she asks if it does fly (Engel, 2021, p. 33). Later, her brother showed her a copy of the *National Geographic* with a dragonfly on the cover; ‘her preoccupation with bugs, dormant since summer’s end, resurfaced’ (Engel, 2021, p. 37). She soon started experimenting with insects – capturing some, checking whether the dog eats meat covered with ants. Aged 6, her interest in bugs is subsumed under something larger: after having found a dead heron, her babysitter shows her how to cut one of its legs and dry it. Addie starts a collection of animal skeleton and carcasses and dissects an animal with her brother. ‘By the time Addie was eleven, her zoological collection filled up three walls of her bedroom’ (Engel, 2021, p. 46). At school, when ‘her teachers invite to chose a topic to write about, Addie wrote about animals – where they lived, what they ate, their hunting strategies, who their predators were, how their organs worked, and what their scat looked like’ (Engel, 2021, p. 47); this interest became a systematic exploration of species, their mode of living and their habitats, and ‘at eighteen, Addie went off to college, to study biology’ (Engel, 2021, p. 63). In her analysis, Engel emphasizes Addie’s surprise and curiosity, the interest in a theme, but also, the environment’s acknowledgement and support, welcoming questions, thus opening to more possibilities. The example also shows that Addie’s interests are stabilized in an engagement thanks to systematic observations and learning. Finally,

Engel also notes that the child can become aware of their own brilliant ideas (Engel, 2021, p. 175).

Drawing on Piaget and Engel's observations, and the wider literature, I thus suggest that the developmental trajectory of children implies the emergence of five modalities of pleasure of thinking: curiosity, growing out of surprise; a functional pleasure of pursuing an activity and deepening it, which is a lower intensity but longer-term pleasure; the pleasure of discovery; a dialogical pleasure, grounded in significant intersubjective dynamics; and the meta-pleasure of enjoying one's own ideas.

### 3. Pleasure in thinking at school

If we admit that children develop five modalities of pleasure in thinking in early interactions and along their primary socialization, what do these become when children enter school, an institution meant to channel and foster learning and development? Here I examine one situation of classroom interaction and a longitudinal sequence.

The pleasure of thinking at school is rarely at the core of research (but see studies on joy, Nordström et al., 2019, 2021), even though many studies consider reinforcing the ludic, fun, or creative nature of learning, especially for children experiencing difficulties with mainstream education, such as the Fifth dimension project by Michael Cole and his group (Cole & Consortium, 2006) or initiatives connecting school with extracurricular activities (Kumpulainen et al., 2009, 2014; Moll et al., 1992; Rajala et al., 2023) or the arts (Walker et al., 2021).

However, pleasure and laughter can accompany children's exploratory activities in the classroom. In one sequence of dialogue collected by Antti Rajala, children aged 9–10 are reflecting at the question 'where do stone come from?' after one child has proposed that stones come from sand, Saara asks where sand come from. Kimmo responds 'I think it has come from (...) Earth. Like, there has been in the beginning a fiery, a sun, or some sort of a fireball and then it has hardened and then'; the children laugh, and the researchers write '(Kimmo's ideas are laughed at)'. The sequence continues with Timo saying: 'A fireball (laughing)', and Kimmo replying, 'I mean a big one'. They continue arguing, Oliver says, 'So I'm not like believing that there suddenly comes this fireball, that there comes this fireball or like or like (laughter) then all of a sudden the sand appears' (Hilppö et al., 2016, p. 25). The authors comment that the laughter is a sign of mockery, but perhaps children are laughing at the enjoyable ideas they

imagine: a big fireball in the sky! Hence, such sequence of collectively imagining could be seen as an exciting, enjoyable, and fun thinking experiences. If this is so, the pleasure of thinking seems to deploy in a frame constituted in a safe enough 'thinking space' (Perret-Clermont, 1996, 2015); part of the enjoyment may be due to the dialogical nature of the activity; the core of the pleasure is given by the imaginary exploration of possible worlds, drawing on a variety of symbolic resources (Zittoun & Gillespie, 2016). And of course, at the end of the sequence, the imagination comes back to a plausible exploration (Hilppö et al., 2016). Such microgenetic analysis suggests that an act of pleasurable thinking takes place in specific conditions, has a trajectory, and may take various modalities.

What may be the long-term consequences of such type of interactions in children's learning trajectory, and their development? My hypothesis is that curiosities can be, or not, cultivated by the children's environment (adults, peers, material, and symbolic conditions), so as to turn them in interests, which themselves can become long-term engagements. Andrew Pollard and his colleagues carried out one of the few accessible qualitative longitudinal studies of children aged from 4 to 11 during their school years, from reception class up to the 8<sup>th</sup> class (Pollard, 2004; Pollard & Filer, 1999). Methodologically, the study involved a description of the school programme in a context of national educational changes in the UK (end of 1980–1990s), diaries filled by parents and teachers, observations at schools, and interviews with the children and their parents at home. Hazel is one of the ten children documented by the authors; I summarize her trajectory, emphasizing the modalities of pleasures identified so far.

In reception year, the mother of Hazel notes that as baby, she always knew what she wanted; she was both very physical and interested and engrossed in playing (Pollard, 2004, p. 104). Her teacher writes that 'she likes to "know" things' and is frustrated when she does not understand something (and ignores it if she finds it meaningless); she is a 'strange little girl' (Pollard, 2004, p. 109) who likes to draw faces, to line up animals, and to enter in imaginary games. The teacher encourages Hazel to develop her imagination in her first story writing, and she produces very expressive drawings. The following year, in year 1, Hazel's parents take her and her sister to the zoo, starting at the reptile house; the mother writes 'the children are fascinated. We tell them about the different sorts of reptiles and about some of them, like the iguanas, look like miniature

prehistoric monsters. (...) Driving home the children are in very good humour, making their own stories [about tarentula and one-eyed dinosaurs]. Evening carries on a prehistoric note, by special request Rob draws various sorts of dinosaurs for the children' (Pollard, 2004, p. 120); the mother decides to bring the children to see dinosaurs at the Natural museum. At school, Hazel does not like not understanding; 'it makes her feel cross and like crying at the same time' (Pollard, 2004, p. 121). When the teacher asks her to make a drawing based on the story of a goat, Hazel replies 'I know how to draw a stegosaurus. My Daddy showed me. They have prickles on their back'. Hazel explains the researcher, as she 'sits and sulks' that she will draw 'a beautiful red and yellow dinosaur'; 'I'll write that; I will write the dragon lived up a mountain and came down to go to a party' (Pollard, 2004, p. 125). That year, although the teacher is frustrated with her lack of engagements with maths, she finally recognizes her creativity; Hazel continues drawing beautiful, expressive dragons. In year 2, Hazel has a new teacher, who finds how to channel Hazel's interest; providing books about dinosaurs, she brings her to develop her reading skills, and she starts writing stories. The mother notes that the family became hysterical when Hazel wrote a story about a dinosaur taking a bath and hanging the skin he took off, and how that was brilliant (Pollard, 2004, p. 137). The teacher manages to support these engagements while bringing Hazel to work in other domains. The mother notes that Hazel starts to read more complex stories; when she tells her it's bedtime, Hazel asks to read more he book – 'the best I have ever read, it's just like watching a video in your head' (Pollard, 2004, p. 139).

We can emphasize the evolution of Hazel's pleasures of thinking through this trajectory. From early on, she seems very committed in topics that interest her while tolerating little frustration. Before school, at home, she developed her curiosity for dinosaurs, which is cultivated as shared interest in the family – a dialogical pleasure. The teacher of year 1 tries to orient Hazel's interest to other objects (e.g., a goat) which Hazel rejects, frustrating both of them. In year 2, the teacher acknowledges Hazel's interest; providing a book about dinosaurs, she reorients her engagements into learning to read and write. There, Hazel experiences the pleasure of invention – the dinosaur taking off her skin. It is thanks to a new teacher's recognition of that domain that she accepts to further explore the same domains at school, this time involving the cultivation of

formal skills (functional pleasure). Thanks to this circulation of interests between school and home, Hazel develops the fifth pleasure, that of knowing about the pleasure of thinking about all this. Hence, Hazel eventually could experience the five modalities of pleasure and turn her initial curiosity in a long-term engagement. Yet the example also suggests how much it was challenged and could have been inhibited.

Hence, both in Addie and Hazel's case, the pleasure of thinking moved across modalities (from curiosity to meta-pleasure), across domains of experience – home, school, and leisure –, and from personal spheres of experiences – gathering leaves or family games about dinosaurs – to more formalized knowledge as taught at school (Zittoun, 2022).

#### 4. Trajectory of thinking in adult life

A careful reading of the literature on thinking or learning at work or in the leisure time suggests that, for adults, acts of thinking have specific trajectories, and that people may develop thematic engagements that can accompany their trajectories of thinking over longer periods of time. These can run within and across spheres of experiences, from informal to formal knowledge and back, for instance, in link to people's interests for gardening (Zittoun & Gillespie, 2015) or cinema (Zittoun et al., 2023). Here, I highlight the pleasures of thinking in the trajectory of one 'professional thinker' (Arendt, 1978).

Kurt Lewin (1890–1947) is known for his original contributions to social psychology, including topological psychology and field theory, psychosociology, and applied research (Dege, 2019; Gold, 1999; Lewin, 1936, 1940, 1951). Alfred Marrow wrote Lewin's biography based on his memories, documents and other persons' testimonies. Lewin was born in Germany where he started his academic career; in the 1930s, he is described as brilliant young man, able to share his ideas and to stimulate an intense group of students. With the rise of Nazism and the approach of the war, Lewin moved to the U.S.A.; 'in May 1932, Kurt arrived in New York, where he stopped for a few days en route to California. (...) Murphy remembers being introduced to a "slender, rosy-cheeked, eager, thoughtful young man" (...) [Lewin] projected an interest in his subject that was warm and intense' (Marrow, 1969, p. 65). He was later appointed in Iowa, where his work and reputation started to attract many students and young researchers, among which Leon Festinger. He

started to have regular Tuesday lunch meetings; ‘at lunch, animated conversations, bad puns, and much laughter prevailed’ (Marrow, 1969, p. 88) although it was often due to his clumsy English. ‘Lewin was “warm and fun-loving. (...) He liked and told good jokes – poorly” (Marrow, 1969, p. 88). Once appointed in Iowa, Lewin continues working with his group, quite certain to pursue the truth while avoiding strong controversies with other colleagues. He seems to have had favourites students, without obliging them to work on his topics; he was stimulated by their ideas and would continue to work with them even after their thesis. Later, he started to organize a yearly “topological meeting”, to which Fritz Heider and his wife, Margaret Mead, Kurt Koffka, Jerome Bruner, Tamara Dembo, and many others participated. Mac Kinnon remarked that:

In every group of psychologists I was ever part of, it was Kurt’s reactions and Kurt’s ideas that stimulated the group more than anyone else’s. I think the reasons why Kurt had such a following was that he loved the ideas people brought with them. Kurt’s rewards were the rewards of intrinsic motivation as opposed to extrinsic motivation. Lewin didn’t do anything for the pay of other external rewards; he did it because he was vitally interested (...) and *loved* the problems we were talking about and he was working with. It was love that existed and drew the group together – not a personal love of one person for another, but a love generated because of Kurt’s interest in, and real devotion to, everyone’s problems and the time he spent with us on them. Lewin enjoyed what he was doing’. (Marrow, 1969, p. 115)

These excerpts of Marrow’s biographical narrative suggest a Kurt Lewin passionate about his work; his curiosities and interests are physically visible in his body movements and style of interaction, and his engagement in thinking seems to be deeply shared with others, via jokes, long arguments, and dialogues. Pursuing his theoretical investigation, he was nourishing his thinking through many dialogical encounters, and he was not scared to push it to new endeavours, as in companies. We can, of course, only imagine that he had pleasure in discoveries – such as when creating his topological system. Also, the way in which he organized his scientific life, the creation of working groups, his cultivation of communities that allow ideas to emerge suggest also a strong meta-pleasure – an awareness of his pleasure of thinking and a deliberate cultivation of the conditions for its emergence.

There is no space here to follow the development of thinking in the life of older persons; however, it can be noted that there is evidence both in

experimental (Hess, 2022; Hess et al., 2022) and clinical studies (Quinodoz, 2009) suggesting that meaningfulness and pleasure play a central role in the thinking of older persons. This opens the way for an examination of the role of the pleasure of thinking all along the lifecourse (Zittoun, 2022, 2024).

## 5. Openings

In this paper, I have raised a theoretical question and made three propositions – that pleasure plays a key role in thinking; that the pleasure of thinking occurs under five distinct, yet interrelated modalities; and that these pleasures develop. I have exemplified these propositions in data collected by past and present researchers, empirical situations which also nourished this theoretical reflection.

The theoretical implication of such exploration is the following: if pleasure plays a key role in thinking, then our psychological models need to give room for it: affects can no longer be conceived of as less developed or oppositional to reasoning. Affects, and especially pleasure, ought to be conceptualized as always already part of thinking, as likely to be more or less mediated, and as appearing under a variety of modalities at any moment. This has implications for theorizing human development. First, to account for children's pull to discover and the development of later pleasures of thinking, an energetic principle is required. In psychology, the concept of drive was replaced by attention or motivation (Csikszentmihalyi, 1978); we may need it back, or an equivalent, to account for the energy sustaining engagement, anchored in our bodies, pushing our search for meaning and complexity (Bion, 1962; Freud, 1940, 1950). Second, human activity, including affects, is mediated by signs that are culturally cultivated and organized. Semiotic mediation does not only function along the dimension of progressive abstraction; distancing can take place along an infinity of dimensions (Neuman, 2014; Salvatore, 2016; Valsiner, 2007). Third, we need to consider conscious, as well as non-conscious or unconscious dynamics when we speak of the pleasure of thinking. People can incubate ideas at a preconscious level (John-Steiner, 1985, 2006) and can solve complex problems in dreams; their conscious reflection is often supported by less conscious undercurrents (de Mijolla-Mellor, 1992). Hence, if affects are embodied and emotions can become progressively distanced thanks to semiotic elaboration, then affects and emotions of diverse degree of elaboration can simultaneously occur at the heart or at the periphery of our consciousness (Valsiner, 2021).

On this basis, it is possible to specify the five modalities that constitute the pleasure of thinking and their development along the lifecourse, as these are likely to surge and be combined in each thinking act, as well as along trajectories that shape people's lifecourse. First, curiosity is the deepest pleasure. It is grounded in early infancy and unconscious dynamics as fundamental need to discover the world and where one comes from. Because of infants' semiotic and affective limited capacities, experiencing something unknowable can have a foundational triggering effect. With access to symbolization and language, it can be turned to other objects, related to immediate satisfaction or transformed through various elaboration (de Mijolla-Mellor, 1992). Driven by their exploratory capacity, infants soon focalize their curiosity on specific objects or events – a small mouse, mud, red trucks – which can be affectively invested, in specific relationships with adults, siblings, or friends. If that curiosity is relationally supported, children can turn accidental curiosities in interests, and interests in thematic engagements – domains, of thematic fields, in which the person has a renewed curiosity. Curiosity as experienced by adults can have many shapes and dimensions: it can run from unconscious processes to conscious ones; it can be more or less elaborated semiotically, from a core drive or movement towards an object to a highly cultivated domain-specific enquiry. The functional pleasure is the pleasure of doing the work of thinking – it keeps us intensively plunged in a searching activity, in solving an equation or in daydreaming – for its own sake. Because it is connected to 'low energy' and binding, it probably occurs at a variety of levels of semiotic mediation, and across them; it is not a very conscious pleasure, but it is connected to our permanent capacity to daydream and reverie, at times becoming more conscious. The third form of pleasure, connected to the discovery, designates the Haha moment of solving a problem (Stenner, 2017), the 'illumination' of an insight, of Wundt's creative synthesis (Diriwächter, 2021). The discovery pleasure is associated to the emergence of a stabler construct, binding experiences of diverse degree of consciousness and complexity, into a whole that has some stability. It is pleasurable as satisfaction of a pursuit, as concentrating functional pleasure, and has aesthetic value in itself. The dialogical pleasure is the fourth type; it is related to the presence, real or imaginary, of other thinking partners. Starting with the early experience of attunement, it evolves with the pleasure of interacting with a carer and sharing surprises and humour; it includes the enjoyment of playing with a family member or a friend, the engagement in studying

with a teacher that acknowledges and guides our thinking attempts, the attention of the audience to which one talks, or the pleasure of the imaginary dialogue with authors of the past. It includes a dialogical movement, the affective quality of the exchange, and the energizing pleasure of complicity, challenge, or competition. It can have any level of elaboration and degree of consciousness at a given moment. Finally, the meta-pleasure is the fifth pleasure, coming from the realization of the other forms of pleasure: it is the contemplation of one's ideas, a form of meta-affect (Debellis & Goldin, 2006). It can be unconscious, preconscious, or conscious, and need a certain degree of mediation. It can surge spontaneously as reflective move, but it can also be triggered by others, or systematically pursued, as we have seen for Lewin.

Finally, the present propositions have empirical implications. Showing the centrality of the pleasure of thinking in learning and development over the life-course calls for its better consideration in education. In kindergarten, vocational school or higher education, it invites teachers or educators to pay more attention to students' manifestations of pleasure, to create spaces for curiosity and interest to grow and to acknowledge and guide these so as to further develop in engagements. Such suggestion is not revolutionary: yet it grounds theoretically the call for more active, listening, and participatory pedagogies. More generally, it may also invite us to consider thinking in learning and at work not only in terms of outputs and performances, but as activities characterized by one unspoken quality: pleasure.

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