

# The Implications of Plurilingual Creativity to Education

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## 2 and more languages

- **Bilingualism→Trilingualism→Multilingualism**
  - Monolingual native-speaker model (*ein monolingualer Habitus*, Gogolin, 1994)
  - Additive approach
- **(Trans)languaging** (Williams, 1996; García, 2009)
  - Welsh-English bilingual programs
  - Systematic and intentional alternation of input and output languages in bilingual instruction
  - 'language' as a social practice in which learners engage rather than a set of structures and functions that they learn
- **(Linguistic) multi-competence** (Cook & Wei, 2016)
  - *Dynamic system theory*: major transformation of the cognitive and linguistic system as a result of acquiring multiple languages (Larsen-Freeman & Todeva, forthcoming)
  - It is not seen as the sum of different linguistic competences but as a specific competence of a higher taxonomic order, which posits a systemic cognitive asset in speakers of multiple languages

## Plurilingualism

- **The ability to interact, even imperfectly, in several languages in everyday setting** (Council of Europe, 2001)
- **Linguistic repertoires include unevenly developed, fluid, and constantly shifting competencies in a variety of languages, dialects, and registers** (Cummins, forthcoming)
- **It is a practice, something we do rather than something that precedes our activities** (Lüdi, forthcoming)
- **The knowledge of multiple languages as well as the understanding of different sociocultural and emotional contexts in which these languages were acquired contributes to improvement of an individual's communicative skills** (Council of Europe, 2018)
- **Plurilingual and pluricultural competence** (Coste, Moore and Zarate, 1997/2009)
  - ... the concept of plurilingual and pluricultural competence [...] defended the (sociolinguistic) notion that [...] plurilingual individuals used two or more languages – separately or together – for different purposes, in different domains of life, with different people, and because their needs and uses of several languages in everyday life could be very different

## Multi- vs. Pluri-lingualism

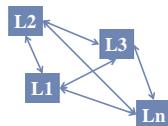
### Multi-

L1+L2+L3+...+Ln



### Pluri-

{L1, L2, L3, ..., Ln}



## Main Characteristics of Plurilinguals

- **Code-switching/code-mixing**
- **Intercultural competence**
  - **Flexibility**: the ability to change cognitive structures and behaviors
  - **Cross-cultural empathy**: the abilities to connect emotionally with representatives of other cultures
  - **Tolerance of ambiguity**: the ability to maintain a relaxed attitude toward an unclear situation
  - **Mindfulness**: openness to the variations in the communication flow stipulated by differences in people's cultural perspectives
- **Metalinguistic awareness**
- **Creativity**

## Education

### MONO.edu

- Additive approach
- Monolingual approach to multilingual education
- Linguistic appropriateness
- Raciolinguistic ideologies
- Prescriptive standardized ideologies
- Marginalized non-standard linguistic practices of plurilingual students

### PLURI.edu

*Introduced by the Council of Europe in 1996*

- Founding principles
  - the acceptance of cultural diversity
  - the right to use one's mother tongue as a form of communication
  - the right to gain experience and knowledge of another language
  - the acceptance that language is the core of human dialogue
- Guiding principle
  - plurilingual repertoires to be developed through education can be diverse
  - languages that are the components of plurilingual competence do not all have to be learned to the same level
  - language education takes place throughout life and not exclusively during school years

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## Plurilingual Creativity

### Review in Kharkhurin (forthcoming)

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## Creativity

- Guilford (1967)
  - Divergent thinking
    - Generation of a multitude of often unrelated ideas
  - Convergent thinking
    - Extracting creative ideas from the pool of those generated during divergent thinking
- An ability to initiate multiple cycles of divergent and convergent thinking, which creates an active, attention-demanding process that allows generation of new, alternative solutions
- Characterized by
  - novelty (original or unexpected)
  - appropriateness (useful or meeting task constraints)
- Everyone has this ability, but it's realized differently in different individuals (*Creative Cognition*, Ward, Smith, & Finke, 1999)
- Divergent thinking measure
  - Abbreviated Torrance Test for Adults (ATTA, Goff & Torrance, 2002)

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## Creativity Assessment

- The standard ATTA assessment included 4 norm-referenced creativity traits:
  - Fluency
    - total number of relevant responses
    - Activity 1, 2, 3
  - Elaboration
    - amount of detail in the responses
    - Activity 2, 3
  - Flexibility
    - different categories of relevant responses
    - Activity 3
  - Originality
    - the statistical rarity of responses
    - Activity 1, 2, 3
- SPSS FACTOR
  - Generative capacity (GC)
    - the ability to activate a multitude of unrelated concepts and work through the concepts already activated
  - Innovative capacity (IC)
    - the ability to produce innovative and useful ideas

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## Empirical Findings

- Bilinguals > Monolinguals → Creativity  
(see Ricciardelli, 1992; Kharkhurin, 2012, for an overview)

### Bilingualism enhances

- Innovative capacity (Kharkhurin, 2009, 2011)
  - enhanced by inhibition mechanism of executive control (Bialystok, 2005)
- Generative capacity (Kharkhurin, 2008)
  - enhanced by language mediated concept activation mechanism (Kharkhurin, 2017)
- Non-standard thinking (Kharkhurin, 2009)
  - enhanced by inhibition and facilitation mechanisms of executive control (Bialystok, 2005)

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## Plurilingual factors influencing creativity

- Factors of multiple language acquisition and use influencing creativity (Kharkhurin, 2016, forthcoming)
  - Language proficiency (Cummins 1976; Kharkhurin, 2008; Lee & Kim, 2011; Ricciardelli, 1992; Konaka, 1997)
  - Age of language acquisition (Cushen & Wiley, 2011; Kharkhurin, 2008; Kostandyan & Ledovaya, 2013)
  - Code-switching (Kharkhurin & Li Wei, 2014)
  - Emotional experience (Kharkhurin & Altarriba, 2016)
  - Sociocultural experience (Kharkhurin, 2008; Kharkhurin & Samadpour Motalleebi, 2008; Maddux & Galinsky, 2007; Niu & Sternberg, 2001; Zha, Walczyk, Griffith-Ross, Tobacyk, & Walczyk, 2006)

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## Cognitive mechanisms underlying plurilingual creativity

- **Selective attention** (Kharkhurin, 2011)
  - **Highly proficient bilinguals: inhibition mechanism**
    - Inhibition → innovative capacity
    - Inhibition → non-standard thinking
  - **Moderately proficient bilinguals: facilitation mechanism**
    - Facilitation → generative capacity → non-standard thinking
- **Language Mediated Concept Activation** (Kharkhurin, 2017)
  - **Specific architecture of bilingual memory facilitates the greater spreading activation between conceptual representations and thereby stimulates an ability to activate a multitude of unrelated concepts (i.e., generative capacity)**

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## Personality traits underlying plurilingual creativity

- **Cognitive flexibility**
  - This trait allows an individual to find different perspectives, to switch between perspectives, and to think outside the box
- **Tolerance of ambiguity**
  - Tendency to perceive ambiguous situations as desirable
  - Individuals speaking more than two languages revealed greater tolerance for ambiguity in comparison with those speaking two or only one language (Dewaele & Wei, 2013)
- **Open-mindedness**
  - Openness to different sociocultural constructs
  - Open and unprejudiced attitude towards outgroup members and towards different cultural norms and values
  - Advanced knowledge and frequent use of more languages was linked to open-mindedness (Dewaele & Stavans, 2012; Dewaele & van Oudenhoven, 2009)

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## Personality traits underlying plurilingual creativity

- **Preference for complexity**
  - **Creative perception predicts creative behavior** (Kharkhurin, 2017, submitted; Kharkhurin & Yagolkovskiy, 2019, submitted)
    - Creative perception of the environment = preference for complexity
  - **Plurilingual individuals live in complex linguistic and sociocultural systems**
  - **Plurilingual practice enhances preference for complexity**
- **Motivation**
  - **Creativity generally prospers under conditions that support intrinsic motivation (stimulated by personal interest and inner potential) and suffocates under conditions accentuating the extrinsic motivation (such as rewards and incentives)**
  - **Motivation plays a pervasive role in language learning**

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## Plurilingual Creative Education

- **Two types of educational programs**
  - ones fostering foreign language learning
  - ones intended to facilitate students' creative capacities.
- **Creativity fostering programs operate separately from those giving bilingual instruction, and researchers and teachers working on them have mutually exclusive training**
- **The academic community generally disregards the potential relationship between bilingualism and creativity**
- **Similarly, the benefits of merging programs fostering creative potential and multilingual skills seem to escape the attention of the educators**
- **However, the efficacy of the programs combining both efforts can be directly inferred from the research demonstrating that bilingualism facilitates certain cognitive mechanisms underlying an individual's creative performance**
- **By combining bilingual and creative trainings, a far greater synergy could be created**
  - This program would capitalize on the assets of both forms of education to establish an effective and comprehensive curriculum

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## Plurilingual Creative Education

- **PCE aims at facilitation of the overall linguistic, intellectual, and creative competences of young children regardless of their intellectual and creative predispositions**
- **PCE is designed for both migrants who speak their native language and attempt to acquire the language of the migration country and autochthones who want to acquire a foreign language simultaneously with their mother tongue**
- **PCE introduces students to a school curriculum in two languages and fosters four defining aspects of creativity (novelty, utility, aesthetics, and authenticity)**
- **PCE utilizes the holistic approach, which combines cognitive, personal, and environmental factors in education**

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## PCE Program Attributes

- **Personal attributes**
  1. Sense of purpose & intention
  2. Intrinsic motivation
  3. Openness to new ideas & experiences
  4. Tolerance for ambiguity
  5. Autonomy & self-confidence
  6. Self-competence, risk taking & challenges accepting
  7. Aesthetic sense

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## PCE Program Attributes

- **Curricular attributes**
  1. Student-directed instructional strategies enhancing linguistic and creative abilities
  2. Using of current teaching strategies, but presenting academic curriculum through two languages
  3. Adaptation of school curriculum to the diversity of languages and cultures
  4. A balanced curriculum that includes both basic and higher-order skills
  5. Innovatively organized classroom environment
  6. Systematic student assessment
  7. Expansion of teachers' roles and responsibilities

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## PCE Program Attributes

- **Cognitive attributes**
  1. General knowledge and basic skills in two languages
  2. Specific knowledge base and domain-specific skills
  3. Convergent thinking: analysis and synthesis
  4. Divergent thinking
  5. Accommodation rather than assimilation
  6. Problem finding and solving
  7. Metacognitive skills: self-evaluation and self-management

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## PCE Program Attributes

- **Administrative attributes**
  1. Innovative leadership
  2. Customize learning environment
  3. Supportive school-wide climate
  4. A close bond between teachers and students
  5. Ongoing professional staff development
  6. Protection and extension of instructional time
  7. Articulation between schooling modules and coordination between schools utilizing BC

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## PCE Program Attributes

- **Environmental attributes**
  1. A coherent sense of who the students are and what they hope to accomplish
  2. Deviant behavior of a student is accepted with tolerance, absence of strict sanctions against minor flaws, and approval of creative urges
  3. Opportunities for practice of acquired skills outside the school curriculum
  4. Adaptation to mobility and special non-school needs of the students and families
  5. Involvement of parents and community in their children's education
  6. Combination of the efforts of school staff and social service agencies
  7. Utilizing available resources in highly coordinated ways

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## PCE Abridged

- **Content learning**
  - Standard curriculum materials
- **Method**
  - 50:50 Dual Language program
  - Techniques fostering creative potential (Starko, 2010)
    - a) problem finding
    - b) divergent thinking
    - c) Brainstorming
    - d) SCAMPER
    - e) attribute listing
- **Evaluation**
  - Creativity: Torrance Tests of Creative Thinking
  - Language skills: Peabody Perceptive Vocabulary Test
  - Fluid intelligence: Culture Fair Intelligence Test

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## PCE Delivery

- **BCE team**
  - a professional teacher
  - two teaching assistants,
  - special training, which allows them to deliver the BCE program in two languages in a manner fostering students' creative capacities.
- **Type**
  - Intervention program
- **Duration**
  - 12 months
  - two hours twice a week

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## PCE Schedule

1. A discussion of the previous homework (brainstorming)
  2. In-class group activity
    - using one or more out of five creativity fostering strategies
  3. A presentation of the next homework related to in-class activity
- The instructions and teaching materials are given in one language during the first hour and in another language during the second hour
  - All group activities require oral participation, and homework involves written assignments

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## PCE Goals and Outcomes

- To improve an overall schooling process
  - Use of material studied in the core curriculum
  - Students in the BCE program deal with the same material they have already studied, but in a more elaborate and game-like manner
  - This improves their understanding and retention of the material, which eventually may result in better school performance
- To foster students' creative potential
  - Intensive use of creativity fostering techniques
- To enhance students' linguistic abilities
  - Increasing students' motivation to use both languages in the academic environment
  - In the BCE class, the students learn to use both languages in solving interesting and game-like problems
  - In turn, this increases their motivation to improve their linguistic skills

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