

Effects of Tropical Climate and Language Format on Imagery Ability Among French- Creole Bilinguals

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This study examined how a tropical climate (i.e., hot, and wet climatic environment) and different movement imagery language instructions could affect imagery ability on French- Creole bilingual teachers. This study was realized in Guadeloupe where the majority of the inhabitants are bilinguals (Massina et al., 2000). The participants, (Mean = 31 years), performed two tests sessions in quite hot temperature: Air Conditioning (AC) then in Tropical Climate (TC). They were divided into two independent groups: Half of them completed the Creole validated version of the Movement Imagery Questionnaire (MIQ-C; Anciaux, Alin, Le Her, & Mondor, 2002) developed by Hall and Pongrac (1983), whereas the others realized the French validated version (MIQ-F; Lorant & Gaillot, 2003).

The result of this study evidenced significant main effects of the climate: Participants had worse visual and kinesthetic MIQ-F and kinesthetic MIQ-C imagery scores in TC than in AC. More surprisingly participants had better visual imagery MIQ-C scores in TC than in AC. Finally, significant interactions revealed that bad imagers had significant lower kinesthetic imagery MIQ-F scores in TC than in AC, and had significant better visual imagery MIQ-C scores in TC than AC.

The present study highlights the necessity to take imagery ability into consideration. Moreover, the significant differences in the MIQ-C scores for kinesthetic imagery and in the MIQ-F scores for visual and kinesthetic imagery between TC and AC, confirm the literature that heat stress can negatively influence cognition (Gaoua, 2010). However, the fact that visual imagery MIQ-C scores were positively affected by TC, indicates that it is important to take the environment in which a language of movement imagery instruction is done into account. Finally, when realizing movement imagery in sport or physical education the use of Creole language can be particularly beneficial for bilinguals.

References

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