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French Validation of the “reading the Mind in the Eyes Test”

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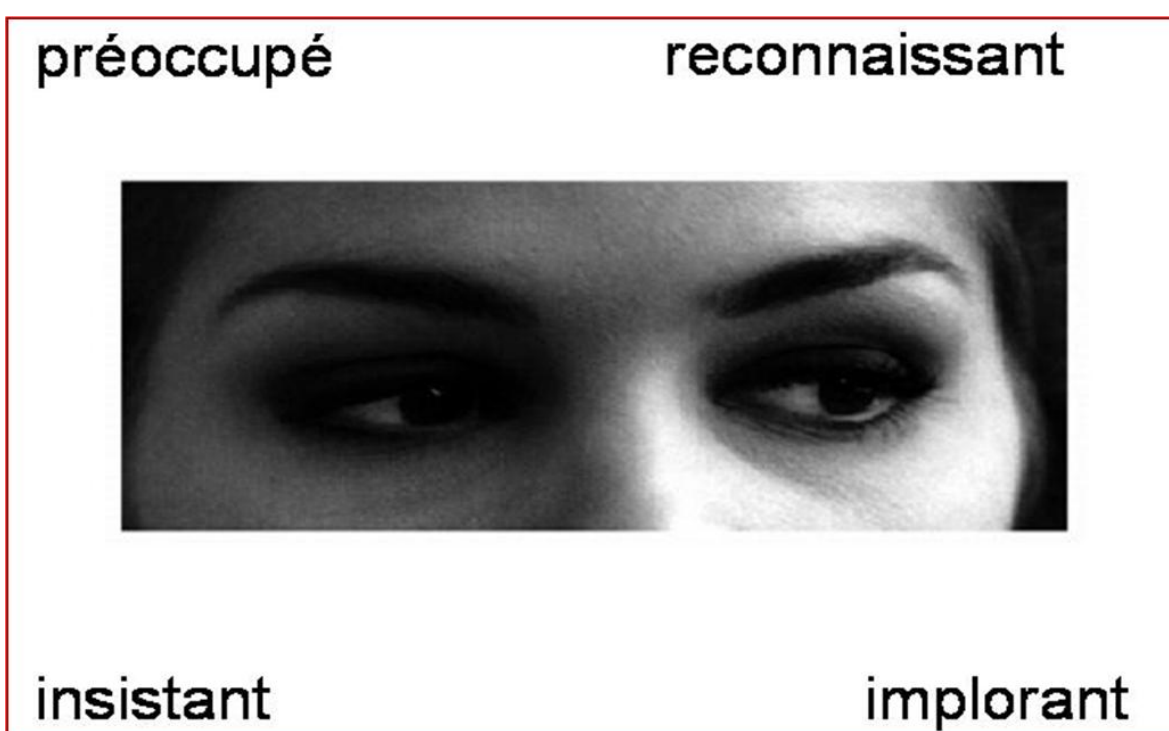
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INTRODUCTION

Very few tests are available to assess the “Theory of Mind” (ToM) in adults in French. The aim of our study was to validate a French version of a ToM task: the “Reading the Mind in the Eyes Test” (RMET ; Baron-Cohen et al. 2001¹). The ToM takes part in the social cognition processes which have impacts on the everyday functioning of schizophrenic patients² but also in bipolar disorder patients³.

According to some authors, some psychotic symptoms are present even in persons without severe mental disease (like schizophrenia). Our aim is to validate our own version of the Eyes Test by studying the relationship between the score at this test from healthy people and the positive symptoms subscale score of the CAPE-42 (Community Assessment of Psychic Experiences, CAPE-P, Brenner et al.⁴). This scale was specifically developed to study psychotic symptoms in general population. The relation between the Eyes Test and the CAPE-P is used to support the predictive utility of the test (according to McDonald, 1999).

The Eyes Test assesses the ToM with pictures of the “eye-region of the face” expressing a mental state. The task of the subject tested is to find among four words the one that describes better what the persons on the pictures thinks or feels.



Item 22: 93 % of correct responses, N=171

METHODS

The test was translated and back-translated. A 35 items version was then administered to 178 undergraduate students. On reliability criteria (corrected biserial item-total correlations and U-L indices), we select 30 items with “ordinal” omega coefficient of 0.78 and ordinal alpha of .76. The other computations were conducted on a subsample of 141 subjects. The different validities were supported by the analyze of the relations between:

- the RMET and a score at a Facial Emotion Recognition Test of 35 validated items (FERT, Ekman,1976; convergent validity on subjects)
- and between the RMET and the “Mill-Hill vocabulary test” (Mill-Hill; a verbal intelligence test, Raven and Deltour, 1998: divergent validity).

A regression was computed to determine if the score at the RMET predicts better the life-time subclinical positive psychotic symptoms assessed with the CAPE-42 (CAPE) scale than other abilities (Verbal intelligence, basic emotion recognition and gender as confounding variable).

RESULTS

Total score distribution

The score does not follow a normal distribution (Shapiro-Wilk Test: $W = 0.938$, p -value $< .001$). The confidence interval at 90 percent of the total score is $CI=[17;28]$. All subjects obtained a score above the chance level score of 12 (binomial distribution with $n= 30$ and $p = 0.25$).

Convergent validity

The correlation between the RMET and the FERT are significant $r=.21$, $p<.01$, $CI=[.04;.36]$ and when we compute the partial correlation adjusted on the Mill-Hill score, the correlation is still significant ($r=.18$).

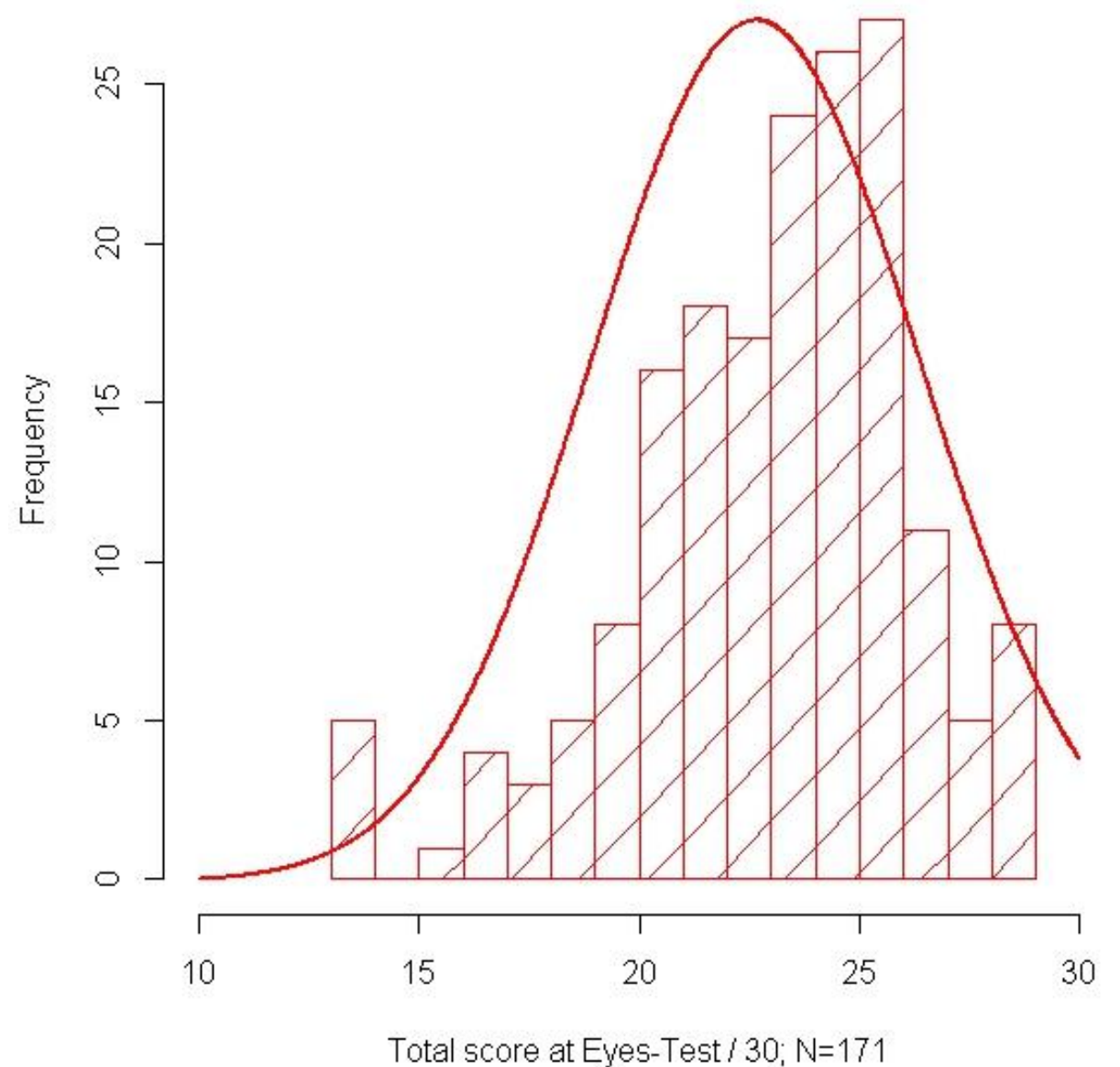
Divergent validity

The RMET show only a trend to correlate with the Mill-Hill ($p=.06$, $N=141$).

Predictive Utility

The regression with CAPE-P as dependent variable is significant: $F(4,117) = 4.6$; and explained 13.6 % of the variance (adjusted $R^2 = 10.7$), the Beta coefficient of the score at the RMET is significant ($\beta = -0.40$, $CI=[-0.73; -0.06]$; $p<.023$), whereas the FERT and the Mill-Hill Beta coefficients were not significant.

Histogram of Eyes Test 30 items



CONCLUSION

This French version of the RMET shows **good convergent** and **divergent validities**. Furthermore, the test shows **better predictive value** than the FERT and the Mill-Hill to predict the subclinical positive psychotic symptoms in a population of undergraduate students. **The results demonstrate that the RMET presents sound predictive utility.**

1. Baron-Cohen S, Wheelwright S, Hill J, Raste Y, Plumb I. (2001). The “Reading the Mind in the Eyes” Test Revised Version: A Study with Normal Adults, and Adults with Asperger Syndrome or High-functioning Autism. *J. Child Psychol. Psychiatry* 42(2):241–251.
2. Fett A-KJ, Viechtbauer W, Dominguez M-G, Penn DL, van Os J, Krabbendam L. (2011). The relationship between neurocognition and social cognition with functional outcomes in schizophrenia: A meta-analysis. *Neurosci. Biobehav. Rev.* ; 35(3):573-588.
3. Purcell AL, Phillips M, Gruber J. (2013). In your eyes: Does theory of mind predict impaired life functioning in bipolar disorder? *J. Affect. Disord.*;151(3):1113-1119.
4. Brenner, K., Schmitz, N., Pawliuk, N., Fathalli, F., Joober, R., Ciampi, A., & King, S. (2007). Validation of the English and French versions of the Community Assessment of Psychic Experiences (CAPE) with a Montreal community sample. *Schizophrenia Research*, 95(1-3), 86–95.