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## The Proximal Zone of Intercultural Development (PZID)

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## Abstract

This article presents results from a comparative analysis of intercultural experiences between French and Singaporean participants. A set of questions was proposed online in order to identify temporalities of an intercultural experience (early and late interculturalization) as well as the level of this experience (intrapsychic, intersubjective and intergroup interculturalization). Our sample consists of 246 participants (144 in France and 102 in Singapore). France and Singapore were chosen as research fields because of their difference in terms of cultural difference management: a universalist cultural model for France and a pluralist cultural model for Singapore.

A quantitative analysis allows us to identify singular differences between the French and Singaporean participants. After 18 years old, our participants' responses showed no difference between French and Singaporean participants with respect to intersubjective and intergroup interculturalization. The quantitative analysis indicates that the only significant difference that remains between French and Singaporean samples after 18 years old is at the intrapsychic interculturalization level.

Our results lead us towards the period of life between 6 and 12 years old that would appear significant in the integration of plural cultural affiliations. Our analysis indicates that intergroup interculturalization seems to allow a greater integration of the interculturalization process at the intrapsychic level, and it is indeed as such that we think of a proximal zone of intercultural development (PZID)

*Keywords:* proximal zone, intercultural, development

## The Proximal Zone Intercultural Development (PZID)

This article presents results from a cross-cultural analysis of intercultural experiences of French and Singaporean participants. Based on an online questionnaire addressing the participants' intercultural experience, a quantitative analysis ( $N = 246$ ) allows us to identify singular differences between the French and Singaporean environments. A particularity of the Singaporean context leads us to think about the concept of proximal zone of intercultural development (PZID) that we will present in this article.

### Categorizing the Intercultural Experience

As part of our research in the cross-cultural psychology field, we proceeded to a comparison of intercultural experiences between French and Singaporean participants. The interculturalization process (Clanet, 1993) refers to an articulation individuals and groups strive to achieve when involved in various cultural backgrounds. Following Derivois (2009), we considered the interculturalization process at three levels where the intercultural situation can impact individuals:

The intergroup level (different cultural groups): This level considers the group itself and its relations to other cultural groups. Analyzing the interculturalization process at this level involves understanding interactions between various cultural groups. The intergroup level mainly focuses on the cultural otherness impact at a macroscopic level.

The intersubjective level (same cultural group): This level considers interpersonal relationships within a same cultural group. Analyzing the interculturalization process at this level implies a specific focus on the modifications that will appear within a same cultural group facing cultural alterity, or otherness.

The intrapsychic level (contact of cultures at the individual inner level): This level mainly considers the way individuals deal with their internal cultural alterity. Analyzing the interculturalization process at this level involves an intimate understanding of the effects intercultural situations have on singular individuals experiencing them.

Derivois (2009) highlights that the intergroup and intersubjective intercultural experiences leave traces that the intrapsychic level will have to deal with. Our research aimed at providing a better understanding of the impact intercultural situations may have on individuals at these three levels. We indeed wondered if there was any singularity in the identity development process determined by experienced cultural contacts throughout life. As part of our investigations, we proceeded to a comparison of intercultural experiences between French and Singaporean participants. Our previous research highlighted that intercultural experiences can be distinguished according to different characteristics of the cultural contacts as follows:

First, the level where the contact of cultures is located, either at the intrapsychic, intersubjective, or intergroup level.

Second, the temporality of the contact of cultures: the goal here is to define the period of life during which individuals experienced cultural contacts as well as the duration of such

contacts. A preliminary qualitative analysis (Oulahal & Denoux, 2018; Oulahal & Denoux, 2020) allowed us to characterize the culture contact temporality as either an early interculturalization or a late interculturalization. This research analyzed life stories of five elderly individuals who had an intercultural experience. The goal was to investigate the autobiographical memory in intercultural situations. The autobiographical memory retains representations of our past and plays a fundamental role in building a sense of identity and continuity of existence. The results indicated that an early intercultural experience would direct life discourse towards a coherence principle in autobiographical memories, emphasizing what the participant was rather than what he achieved. On the other hand, late intercultural experience would orient it to a correspondence principle in autobiographical memories, focusing on actions and temporality of life experiences and highlighting achievements rather than individuals' self-perception. The findings indicated a link between an intercultural life experience and a way of reconstituting a life story. We decided to investigate such categorization (late and early interculturalization) echoing existing results from language sciences that distinguish early and late bilingualism and identify variability in cognitive processes they generate (Singleton, 2003). The language sciences refer to the age of 6 years old to distinguish early and late bilingualism. We thus proposed to investigate the age of 6 years old to distinguish early and late interculturalization.

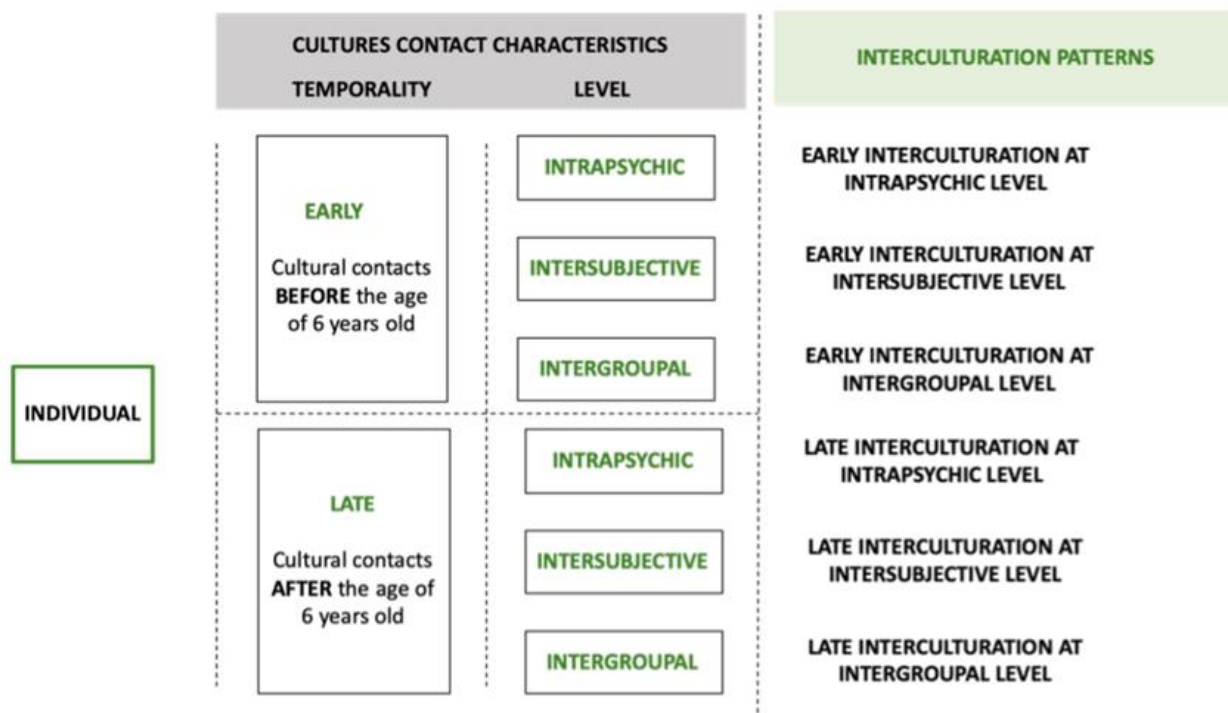
As such, we propose the concept of pattern also derived from the epistemology of language sciences. Indeed, the language use models can evolve according to an individual's life course (Ardila & Ramos, 2010). Considering bilingualism, the two languages can be associated with different social contexts and life situations. Thus, the second language may have been acquired later in life, in connection with a new professional activity or a migration experience. The first language and the second language can be used simultaneously throughout life or during specific periods of life. Furthermore, both the first and the second language may have been acquired quite early in the life course. The patterns of first language and second language use can vary over the lifetime (Ardila & Ramos, 2008).

We thus propose to work on the concept of "interculturalization patterns" and to consider that, for each individual, the acquisition of various cultures can be carried out according to different methods, just as it has been proposed for the languages' acquisition. After our preliminary work, we proposed the following interculturalization patterns.

In order to analyze these patterns, we designed an online survey including a series of questions addressing the contact of cultures in different periods of the participants' lives. Although our proposal was to consider the age of 6 to distinguish the interculturalization experience as early or late, we wanted to get more information by considering different periods of life, according to the identity model proposed by Erikson (1968). Erikson proposed that identity is considered as the synthesis of the various identifications an individual experienced from birth to adulthood and develops throughout life. At the heart of this model are inscribed a succession of stages which allow the individual to develop his identity. To describe this lifelong journey, Erikson proposes eight stages of psychosocial development and each stage is characterized by an identity crisis an individual must face. The good resolution of this crisis allows individuals to consolidate the identity process. The eight Erikson periods of life are as follows: 0-18 months, 18months-3 years old, 3-6 years old, 6-

12 years old, 12-18 years old, 18-40 years old, 40-65 years old and above 65 years old. The 12-18 years old period is singular as it balances the identity processes between identity consolidation and identity confusion. As such, apart from considering the six years old difference from the language sciences domain, we also proposed to investigate the 12-18 years old period in our research.

Figure 1  
*Interculturation Patterns According to Temporality and the Level of Contact Between Cultures*

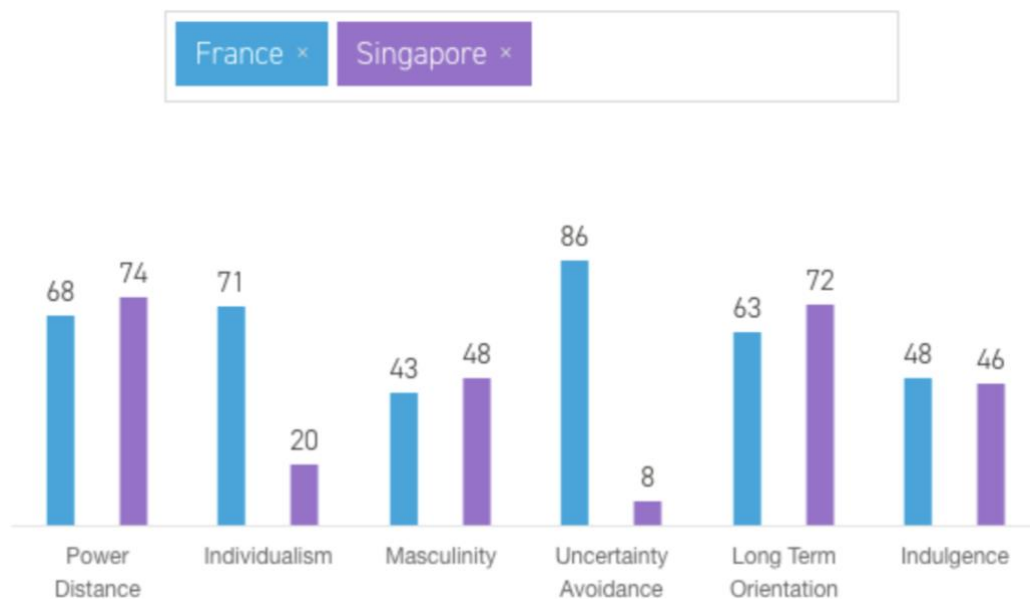


Our research took place on two geographical areas, France and Singapore. Without going into a strict dichotomous approach, we can speak of a universalist cultural model for France and a pluralist cultural model for Singapore as “two major methods of responding to migration questions: one which is inscribed in the context of pluralist societies where an individual’s origin is made visible in the public space and can serve either as a group federation indicator or as an identification parameter for public actions and policies; and one which fits into the context of universalist societies where an individual’s origin belongs to the private area and can neither serve as an identification register for public authorities, nor be mobilized by groups to organize themselves” (Escafre-Dublet, 2015).

We considered differences between French and Singaporean environments. Several authors provided cultural comparison frameworks upon which intercultural psychology researchers can rely (Hofstede, 1994; Trompenaars, 1994; Trompenaars & Hampden-Turner, 1997). According to Hofstede (1994), each society generates its own values and creates forms of organization compatible with its own culture. The culture can thus be seen as a human construction, a collective mind setting that distinguishes a group member from other groups' members. Based on his empirical research, especially in the organizational field, Hofstede proposes a descriptive and distinctive cultural model through factors of cultural differentiation, a set of universal values quantified for each culture. Currently, the Hofstede model is based on six dimensions: the 6-D Model (PDI – Power Distance Index; IDV – Individualism vs. Collectivism; MAS – Masculinity vs. Femininity ; UAI – Uncertainty Avoidance Index; LTO – Long Term Orientation vs. Short Term Normative Orientation; IND – Indulgence vs. Restraint). A score then characterizes each country for each one of the six dimensions (between 0 and 100). We propose below a comparison between France and Singapore.

Figure 2

France and Singapore Comparison According to the 6-Dimensions of the Hofstede Model



According to this model, the two dimensions that significantly distinguish French and Singaporean cultures are individualism and uncertainty avoidance.

## Method

### Sample

Our approach was based on an online questionnaire proposed on our two geographical areas and exploring participants' intercultural experiences. Our sample consists of 246 participants (144 in France and 102 in Singapore).

The only inclusion criterion was the participants' age, which had to be above the majority age (18 in France and 21 in Singapore). The data analysis was carried out with the SPSS software (Statistical Package for the Social Sciences).

The French sample is made up of 144 participants whose ages vary from 19 to 93 years old, with an average of 34.49 years ( $SD = 13.30$ ). 83% of the respondents were women and 17% men. 92% indicated a higher education level, 7% a secondary education level and 1% a primary education level. The Singaporean sample consists of 102 participants whose ages vary from 21 to 65 years, with an average of 31.60 years ( $SD = 10.75$ ). 70% of the respondents were women and 30% men. 96% indicated a higher education level and 4% a secondary education level. A Chi-square independence test indicated no relationship between country and age group variables ( $\chi^2(3, 246) = 4.07, p = .254$ ). A Chi-square independence test indicated a relationship between country and gender variables ( $\chi^2(1, 246) = 5.77, p = 0.02$  and  $\Phi = 0.15$ ). A Chi-Square independence test indicated no relationship between the country and education level variables ( $\chi^2(2, 246) = 2.50, p = 0.29$ ).

### Procedure

The research was granted approval for the ethical evaluation from the Nanyang Technological University (NTU) of Singapore (IRB-2018-03-021). The participants were recruited online via social network platform and emailing. They filled out a questionnaire.

Participants were recruited by sending e-mails and messages on social networks and we also asked within our own networks to transfer our call for participation. In addition, our call was sent to several associations asking them to send it to their members and we also posted it in different French and Singaporean universities. Two types of associations were targeted. First, we contacted psychology student associations and from other disciplines in the humanities and social sciences as well as network groups, social media and blog managers to forward the research call. Our questionnaire being exclusively online, a question arose regarding elderly individuals in this quantitative analysis. We therefore contacted associations providing computer trainings for elderly to get participants above 65 years old able to use computers and get Internet access to answer our questionnaire. No gift or feedback was given to participants.

### Material

A cycle of questions was proposed to our participants to identify the intercultural experience temporalities (between 0 and 6 years old, between 6 and 12 years old, between 12 and 18

years old and finally from 18 years old) as well as to identify the level of this experience, the intersubjective level being considered in the family and friendship contexts while the intergroup level being considered at the general participant's environment (city, country). Culture was considered on a general basis and no specific definition was given to participants. It was rather expected that they would consider cultural backgrounds from their individual perspective.

The questionnaire's items were presented as follows:

- When I was between 0 and 6 years old, I had several cultures
- When I was between 0 and 6 years old, among my relatives (family, friends), several cultures were represented
- When I was between 0 and 6 years old, I lived in an environment (city, country) where several cultures came together
- When I was between 6 and 12 years old, I had several cultures
- When I was between 6 and 12 years old, among my relatives (family, friends), several cultures were represented
- When I was between 6 and 12 years old, I lived in an environment (city, country) where several cultures came together
- When I was between 12 and 18, I had several cultures
- When I was between 12 and 18 years old, among my relatives (family, friends), several cultures were represented
- When I was between 12 and 18 years old, I lived in an environment (city, country) where several cultures came together
- Since I was 18, I have several cultures
- Since I was 18 years old, within my family (family, friends), several cultures are represented
- Since I was 18, I have lived in an environment (city, country) where several cultures come together

## Results

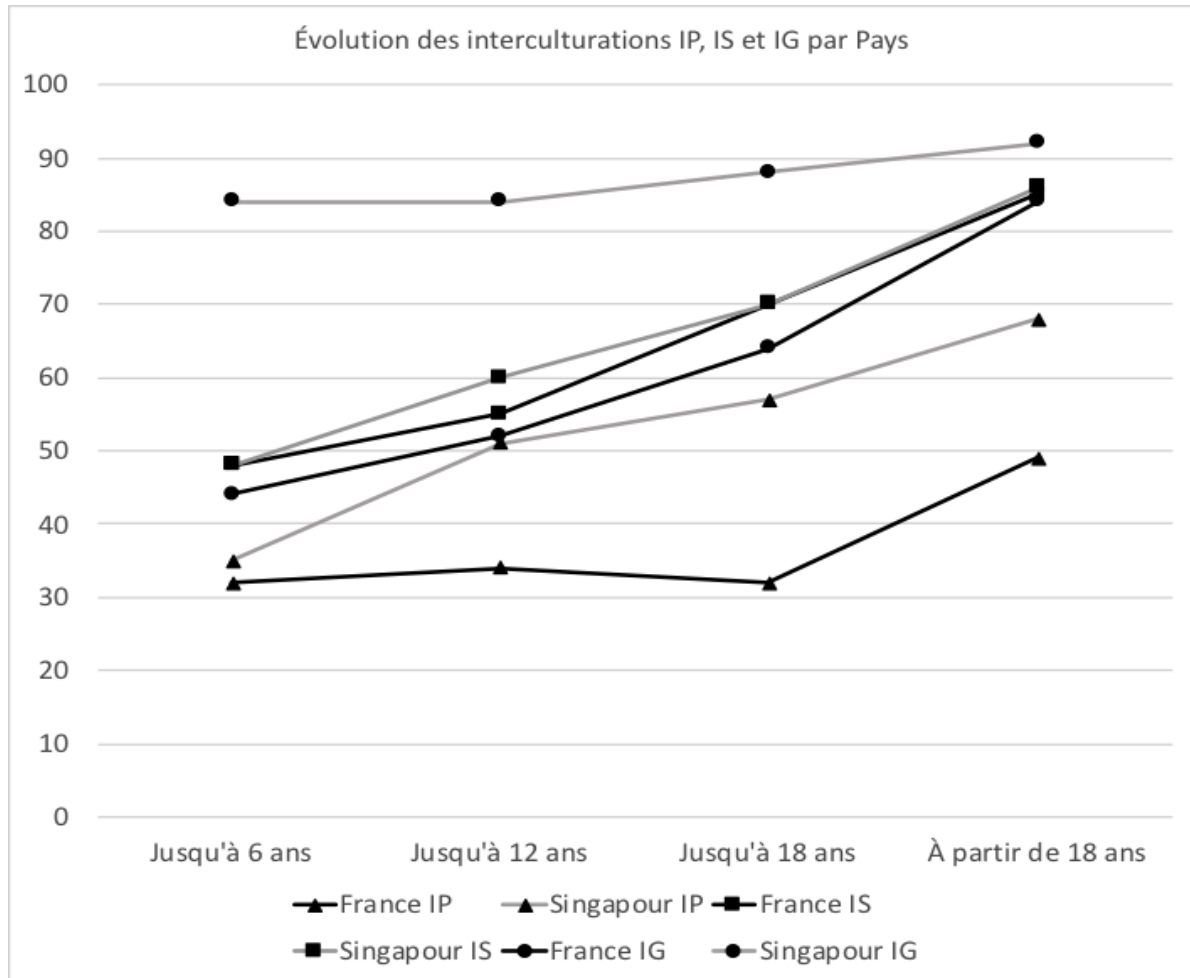
Figure 3 shows the changes and the convergence of intrapsychic and intersubjective interculturations from the age of 18. Our data indicates that the only significant difference between the French and Singaporean samples after 18 years old is at the intrapsychic interculturation level, with 49% of the French participants and 68% of the Singaporean participants ( $\chi^2(1,168) = 5.62, p = 0.02$ ). The difference in interculturation at the intrapsychic level appears before 12 years old ( $\chi^2(1,171) = 4.52, p = 0.03$ ) whereas it was not significant before 6 years ( $\chi^2(1,172) = 0.14, p = 0.71$ ). This difference will remain significant for the other periods of life:  $\chi^2(1,169) = 5.43, p = 0.02$  (before 18 years old) and  $\chi^2(1,168) = 5.62, p = 0.02$  (from 18 years old).



We see in figure 3 that 32% of the French participants and 35% of the Singaporean participants declared they had several cultures between 0 and 6 years old whereas they were 48% in the two countries to indicate having lived in a close environment (family, friend) where several cultures mixed together. Likewise, from the age of 18, 49% and 68% respectively say they have several cultures, while 85 and 86% of them say they live in a close environment (family, friend) where several cultures mix together.

Figure 3

*Evolution of Interculturations by Country (IP: Intrapsychic; IS: Intersubjective; IG: Intergroup)*



Considering France and Singapore, the collected data showed no difference in the intersubjective level of the intercultural experiences. Moreover, from 18 years old, our participants responses showed no difference between France and Singapore with respect to intersubjective and intergroup interculturalization.

Between 6 and 12 years old, our quantitative analysis shows that the significant difference at the intergroup interculturalization level is confirmed between the French and Singaporean participants, Singaporean participants declaring more intergroup

intercultural experiences :  $\chi^2 (1,172) = 26,472, p < .001$  (before 6 years old),  $\chi^2 (1,168) = 17.284, p < .001$  (before 12 years old),  $\chi^2 (1,168) = 10.929, p = 0.001$  (before 18 years old). From the age of 18, the difference is no longer significant between the French and Singaporean participants with regard to intercultural at the intergroup level (  $\chi^2 (1,168) = 2.357, p = 0.125$ ).

## Discussion

Our data showed that the intrapsychic intercultural difference appears before 12 years old whereas it was not significant before 6 years. This difference will remain significant for the other periods of life (before 18 years old and from 18 years old). Thus, the 6-12 years old period of life seems unique in the individual intrapsychic integration of cultural plurality.

Although intersubjective intercultural also increased in the two samples, we did not find a significant difference. As we discussed above, a link could be made with the corresponding period in the stages of development of Erikson's model. The encounter with the group of peers carrying different cultural values could lead a child to consider the gaps and relations between the cultural systems encountered and his own cultural affiliations.

In any case, being born in a multicultural environment does not seem to have any influence in the intercultural at the intrapsychic level between 0 and 6 years old. In a way, family culture would remain at the center of the individual's life between 0 and 6 years old. The non-significant difference between France and Singapore over this period of life in intersubjective intercultural seems to go in this direction.

Our assumption is that intergroup intercultural would not be perceived by individuals between 0 and 6 years old and it would only be from 6 years old that intergroup intercultural would be perceived by individuals and would seem to have an effect on intrapsychic intercultural between 6 and 12 years old.

Finally, our results would indicate that the intrapsychic level is at the center of the cultural contact matter. Because in the end, both in France and in Singapore, a large proportion of participants (over 84%) indicate living in a close (family, friend) and global (city, country) environment where several cultures mixed together. The sole analysis of the multiculturalism of a national environment and/or family should not be considered as sufficient to characterize individuals' intrapsychic intercultural.

As we indicated previously, although the intersubjective intercultural increases with the age in both French and Singaporean samples, it does not seem sufficient to explain the significant difference at the intrapsychic intercultural level. Two potential reasons could appear at this stage. The intersubjective intercultural effect seems to remain limited. Indeed, even in large and equal proportions above 18 years old (85% in France and 86% in Singapore), intersubjective intercultural does not seem to act in any way to bring closer French and Singaporean proportions of intrapsychic intercultural.

As France and Singapore are two different environments in terms of managing the cultures' contact (Singapore being a multicultural environment), we believe that the respective country's policies may lead to a distancing or affirmation of intergroup

interculturalization. Thus, the intrapsychic interculturalization metabolization could be more difficult in France than in Singapore where multiple cultural groups live within the same environment. Intergroup interculturalization would act as a catalyst for the intrapsychic integration of intercultural metabolizations and emergence. Intergroup interculturalization would enable the cultures encounter, but it must be recognized and encouraged so that cultural contacts can be integrated at the individual intrapsychic level. The intercultural identity of the Singaporean participants would echo the intercultural identity of their nation.

Finally, our hypothesis would be that family has a less important effect in the psychic integration of cultural plurality than individuals' national environment. The contact of cultures within the close and intersubjective environment would be a basis of intrapsychic interculturalization but intergroup interculturalization would be the condition for the emergence of intrapsychic interculturalization. And it is as such that we think of the contact of cultures at intergroup level as a proximal zone of intercultural development (PZID).

If we link our assumption to precocious bilingualism (before 6 years old), we can propose the hypothesis that the language plurality integration takes place before the cultural plurality integration which would come between 6 and 12 years old.

According to Vygotsky (1934, 2013), a child's thought development is associated with an inner language. We can therefore wonder if early contact with various languages is not also, beyond the strict linguistic capacity as we have seen with bilingual individuals, an opportunity for the child under development to implement an intercultural inner thought supported by this intercultural inner language. According to Vygotsky (1934, 2013), language is indeed the main mediator for cognition. Schrauf and Rubin (2003), on their side, indicated that bilingual individuals have a language specific self in the way that the self, which is put forward in a given situation, will depend on the language used in that situation.

We initially envisaged that, echoing the research results in the linguistic field, early interculturalization would be formed before the age of 6 years old. However, our quantitative analysis drives us towards the period of life between 6 and 12 years old which would seem significant in the integration of plural cultural affiliations.

## **Conclusion**

We conclude that further analysis of Proximal Zone of Intercultural Development (PZID) would be relevant for future research in the field of cross-cultural psychology.

If we consider the intrapsychic, intersubjective and intergroup levels of interculturalization, we could propose that the interculturalization process develops first in an intersubjective perspective allowing the child to experience contacts with various cultures while interacting with individuals surrounding him. The interculturalization process could then develop as an individual and inner activity. Interculturalization would then develop at the intrapsychic level as an integrated characteristic specific to each individual.

Our results finally indicate that the intergroup interculturalization level seems to allow a greater development of the intrapsychic interculturalization level and it is indeed in this sense that we think of a proximal zone of intercultural development (PZID). Individuals living in an environment with a significant intergroup interculturalization, as this is the case in Singapore,

seem to present a greater individual integration of the intercultural process at the intrapsychic level.

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