Navigating languages and love: Exploring the perceived emotional weight of *I love you* among Third Culture Kids in Denmark ——

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Abstract

This mixed-methods study contributes to understanding the emotional dynamics of a distinct, yet understudied, multilingual population: Third Culture Kids (TCKs). These individuals are typically raised in multilingual and nomadic households and are extensively socialised in English through international schools and expatriate communities. While prior research has focused on the emotional nuances of the phrase *I love you* in adult populations, a significant gap remains in understanding these nuances in other age groups, particularly in the context of transnational upbringing. This study addresses this gap by exploring the perceived emotional weight of the phrase in the linguistic repertoire of 276 TCKs enrolled in the International Baccalaureate Program by examining the emotional dynamics shaped by their first language (L1,mainly a heritage language) and their frequent exposure to English (LX, acquired after L1) in an environment influenced by American culture, where the use of *I love you* is a daily phenomenon. Unlike previous studies, results indicated a combined heightened emotional weight of L1 and LX, challenging the traditional centrality of L1. Furthermore, multinomial logistic regression models revealed TCKs' unique sociobiographical factors as the driving force behind their emotional perception. These findings contribute to understanding how sociobiographical features influence linguistic emotional perceptions and cross-cultural communication.

Keywords: Third Culture Kids; multilingualism; emotions; love; emotional weight.

Resumen

Este estudio de métodos mixtos contribuye a la comprensión de la dinámica emocional en una población multilingüe única y poco estudiada: los Niños de Tercera Cultura (NTCs), que suelen criarse en hogares multilingües y nómadas y son socializados en inglés a través de escuelas internacionales y comunidades de expatriados. Aunque investigaciones previas han explorado los matices emocionales de la frase "I love you" en adultos multilingües, este estudio se distingue al enfocarse en adolescentes. Además, amplía su enfoque para abarcar el fenómeno del translenguaje dentro del contexto influyente de la crianza transnacional. El estudio explora la intensidad emocional percibida de la frase en 276 NTCs en el Programa del Bachillerato Internacional en Dinamarca, examinando su primera lengua (L1, principalmente una lengua de herencia) y la exposición frecuente al inglés (LX, adquirida después de la L1). En contraste con estudios anteriores, los resultados un peso emocional combinado y elevado de L1 y LX, desafiando la centralidad tradicional de L1. Los modelos de regresión logística revelaron que los factores sociobiográficos únicos en los NTC son los principales impulsores de la percepción emocional. Estos hallazgos contribuyen a entender cómo los rasgos sociobiográficos influyen en la percepción emocional lingüística y en la comunicación intercultural.

Palabras clave: Niños de Tercera Cultura; multilingüismo; emociones; amor; peso emocional.

1. Introduction

Research on multilinguals and emotional perception has primarily compared the emotional resonance of the first language (L1) — generally (but not always) the language that elicits the strongest emotional response — and LX, any subsequent language (Dewaele, 2018) often regarded as emotionally distant. Factors influencing the emotional resonance shift from L1 to LX include early LX age of onset of acquisition (AoA), naturalistic LX context of acquisition (CoA), high LX proficiency, frequent use of LX, and extended and intense LX socialisation (e.g. Dewaele, 2008).

Research on the emotional impact of *I love you* has primarily focused on adult English bi-multilinguals in immersion/non-immersion settings, considering sociobiographical factors, such as age, gender, and education level. However, there is a gap in understanding early multilingual development and the enduring effects of transnational upbringing. Furthermore, exploring diverse forms of multilingualism, such as those from intercultural households (i.e. parents with different L1s) in expatriate communities where English is the lingua franca but reside in countries with different languages, requires further investigation.

Hence, this mixed-methods study aims to offer new insights into emotions in multilinguals by exploring the perceived emotional weight of *I love you* in a unique population: Third Culture Kids (TCKs). TCKs, raised in multilingual households and frequently relocating due to parental career choices, navigate the expatriate community (third culture), between their parent(s') and the host country's culture (Pollock et al., 2017), while attending international schools worldwide.

Love, enduring unlike other emotions (Bowers et al., 1994), is deeply influenced by one's linguistic and cultural background. Examining *love* within this cohort presents an opportunity to investigate the interplay between language and emotions over time, considering the past (linguistic history), present (linguistic competence), and various sociobiographical and sociolinguistic factors. This temporal approach enriches comprehension of how TCKs navigate emotions across languages during their developmental years.

2. Background

2.1. Theoretical framework

Love, a multifaceted and socially constructed phenomenon (Pavlenko, 2012), shapes relationships from birth to adulthood, embracing both universal and culturally specific societal norms, values, and expectations (Gareis & Wilkins, 2011). To understand the emotional impact of *I love you* on multilinguals, it is essential to consider the individual perspectives on love and how language preferences shape expression and perception. Thus, while this study focuses on verbal perception, it acknowledges its interdependence with expression.

Given that socialisation is crucial for TCKs, this study explores the family and friend dynamics in bi-multilingual contexts, where both L1(s) (mainly a heritage language, HL) and LX English (L2 in this sample) are used.[1] Grounded in the broader translanguaging framework, it considers the entire linguistic repertoire as an integrated entity, reflecting the versatile language practices of multilinguals (Li, 2018), and the socially constructed reality of TCKs (García & Li, 2014).

This social aspect is complemented by the cognitive and emotional-experiential dimensions of language acquisition.

The cognitive dimension follows the Complementary Principle (Grosjean, 1997), which characterises bi-multilinguals as those using multiple languages "for different purposes, in different domains of life, with different people" (p. 165), resulting in a language mode continuum (Grosjean, 1985) from monolingual (only one language

used) to bi-multilingual speech mode (two or more languages used). TCKs typically display uneven language distributions, with L1(s) predominantly used within the family and English extensively used across multiple domains. L1 acquisition is usually naturalistic (i.e. outside school), driven by parental input (Curdt-Christiansen, 2022), leading to skill asymmetries. Conversely, English (LX) dominates TCKs' daily lives at the international school, as the language of instruction, and during interactions with peers and friends within the expatriate community. TCKs' language processing spans from monolingual, common in households with a restrictive Family Language Policy (FLP), to bi-multilingual in households embracing a more flexible approach to language use. Consequently, TCKs are expected to emotionally blend their home language(s) with their English usage.

The emotional-experiential dimension adheres to Pavlenko's Theory of Language Embodiment (2005), placing TCKs' languages along a continuum from the "primary language acquisition" (typically emotional and context-bound) to the "foreign language acquisition" (typically devoid of emotion and context). Pavlenko attributes the heightened emotional significance of L1 to *conceptual development* (building emotional categories by integrating sensory information refined through socialisation) and *affective linguistic conditioning* (emotional meanings in words stem from connections to charged memories and experiences), rendering L1 an embodied language (Pavlenko, 2005). Conversely, foreign language learning often lacks emotional responses due to limited limbic system involvement (i.e. disembodied language). This study anticipates that English LX, acquired later in life and predominantly in a mixed context — naturalistic through peer interaction in the international school and the expatriate community, and instructed as the medium to deliver the International Baccalaureate (IB) curriculum — may align closer to L1 on the continuum due to its immersive exposure, potentially leading to an embodied perception among TCKs (Rodríguez-Bernal et al., 2023). Consequently, English is expected to actively shape TCKs' perception of *I love you*.

2.2. "I love you" in bi-multilinguals: Assessment clusters

Studies examining the emotional significance of the phrase *I love you* in both L1 and LX have yielded varying findings. To our knowledge, only three empirical studies have explored this expression: one involving a multilingual user base (Dewaele, 2008) and the other two involving English bilinguals from specific L1s (Jahangard & Holderread, 2013; Ożańska-Ponikwia, 2016). L1 consistently held greater emotional weight across all studies despite differing research contexts.

This research categorised factors influencing emotional differences between L1-LX into three clusters: sociobiographical, language profile, and sociolinguistic.

2.2.1. Sociobiographical

Previous research has not identified sociobiographical variables, such as gender, age, or education level to significantly impact the emotional perception of *I love you*. Studies conducted by Dewaele (2008) and Jahangard and Holderread (2013) involving 1459 adult multilinguals and 20 adult Irian English bilinguals, respectively, did not reveal any significant results. Nevertheless, Ożańska-Ponikwia's (2016) study of 72 adult Polish English bilinguals using correlations and stepwise regression found *length of immersion* in an English-speaking country to be a significant factor influencing LX emotional perception of the phrase. Socialisation in LX culture and the degree of LX use were strong predictors of LX emotional expression. Other studies have suggested that immersion can alter emotional perception of LX over time (e.g. Dewaele, 2011; Ożańska-Ponikwia, 2014), leading to *emotional acculturation* (De Leersnyder, 2017).

2.2.2. Language profile

Several studies have found that AoA, CoA, self-reported language dominance, and proficiency in LX influence emotionality in LX (e.g. Dewaele, 2010; Pavlenko, 2005, 2008). Specifically, in studies examining the perceived emotional weight of *I love you,* only self-reported language dominance consistently emerged as significant factor (Dewaele, 2008; Jahangard & Holderread, 2013; Ożańska-Ponikwia, 2016), whereas AoA, CoA, and self-reported oral proficiency only had marginal effects (Dewaele, 2008).

Research examining AoA typically differentiates between simultaneous and sequential bilinguals, with sequential bilinguals showing lower emotionality in later-acquired languages (Pavlenko, 2005). L1(s) is often perceived as more emotionally resonant, while earlier LX AoA aligns closely with L1 emotional perception (Harris, 2004). In fact, an early LX AoA has been found to act as a proxy for a more emotionally charged CoA. The "emotional contexts of learning" hypothesis (Harris et al., 2006) posits that the emotional richness of the learning context influences perceived emotionality. L1 is typically acquired in emotionally rich settings (outside school and at home through social interactions with caregivers), enhancing its emotional charge. However, LX(s) CoA varies, including both emotional and non-emotional contexts (i.e. purely instructed), potentially limiting emotional experiences (Jahangard & Holderread, 2013).

Language proficiency is necessary to accurately discern emotions (Dewaele & Nakano, 2013), with higher proficiency generally correlating with greater perception of emotional significance (Caldwell-Harris et al., 2011). Nevertheless, research on the influence of language proficiency on emotions has yielded diverse outcomes.

Dewaele's (2011) study involving 386 bi-multilingual adults maximally proficient in their L1 and LX revealed a preference for using L1 to communicate emotions, emphasising the context-driven aspect of language use. Other studies have highlighted the linguistic profile of LX participants and accessibility to LX in their upbringing context, further attenuating the overall impact of language proficiency (Dewaele et al., 2021) on perceived emotional intensity. Moreover, recent research suggests that high proficiency may not necessarily correlate with high perceived emotional intensity (e.g. Lorette & Dewaele, 2022), indicating that mastery is less important than the ability to process information. In fact, a novel scale developed to measure emotional resonance in LX compared to L1 in bi-multilinguals, separates proficiency from emotional resonance, recognising the relationship's dependence on factors like frequency of use and cultural exposure to LX (Toivo et al., 2023). Dewaele's et al. (2023) study involving 141 Arab bi-multilinguals, used this scale and found that the AoA and context and nature of exposure during primary education increased English emotional resonance. The current intensity and frequency of exposure to English enhanced language embodiment. Notably, proficiency did not necessarily imply language embodiment.

Individuals' cultural backgrounds also greatly impact their emotional expression and perception. Each culture provides a framework for conceptualising emotions and offers a distinct set of emotion scripts (Wierzbicka, 1999), shaping how emotions are interpreted and communicated. Consequently, *emotion concepts* (Pavlenko, 2008) serve as unique prototypical scripts that encapsulate and convey emotions based on society's collective experiences. Furthermore, diversity in emotional language use is linked to the presence or absence of emotion equivalents (Altarriba, 2003; Wierzbicka, 2004), explaining variations in usage among bi-multilinguals.

2.2.3. Sociolinguistic

The frequency of language use significantly impacts emotional perception in LX (e.g. Degner et al., 2011; Dewaele et al., 2023). A high frequency of language use (i.e. high level of language immersion) indicates strong socialisation, leading to a diverse network of interlocutors, increased proficiency, and a greater likelihood of expressing emotions in that language (Dewaele, 2010). Secondary socialisation (Bayley & Schecter, 2003) may result in a conceptual shift to LX for expressing and perceiving emotions (Pavlenko, 2004, 2005), especially for concepts lacking equivalence in L1 (Pavlenko, 2008).

Likewise, being bi-multilingual allows individuals to evaluate and interpret emotional experiences from multiple perspectives (Pavlenko, 2008). The perception of oneself and the world is shaped by the vocabulary provided by the L1/LX language(s) (Wierzbicka, 1999), making emotional experiences more than just comprehension.

Thoughts, memories, and emotions can be significantly influenced by the language in which events occur, leading to retrieval in that language when triggered (Marian & Neisser, 2000).

This research contributes to the literature on the phrase *I love you* by focusing on adolescents in the family and friendship domains, employing combined frequency analysis and inferential statistics (multinomial logistic regression) to analyse the impact of both individual and collective factors on emotional perception.

2.3. Assessment clusters in TCKs

To our knowledge, no studies have explored the perception of *I love you* in TCKs. The following section provides an overview of the clusters analysed in the study.

2.3.1. Sociobiographical cluster

TCK's perception of love is expected to be influenced by their transient lifestyle and emotional dynamics, centred around the family, international school, and expatriate community.

Their transient lifestyle often strengthens family cohesion (e.g. Lê et al., 2010), as the family becomes the primary source of stable socialisation across moves, resulting in a "family bubble" with parents and children, while the extended family is left behind (Schaetti & Ramsey, 1999). They often (not always) come from high socio-economic backgrounds and may access additional resources, such as domestic staff upon arrival in the host country (e.g. De Mejía, 2002), though this varies by destination. Early relocation age and interaction with domestic staff in a language different from parents may contribute to early bi-trilingualism (Eidse & Sichel, 2004), especially in intercultural families.

TCKs' families are connected to their community and international school through a sponsor (the caregiver's employer), which enhances their sense of belonging (Sichel et al., 2011). Families further strengthen their bonds by socialising within the "expatriate bubble", a closed social network formed through encounters with other expatriate families from their children's international schools, which limits interaction with locals and perpetuates linguistic reliance on English (Meyer, 2021). Similarly, the international school fulfils TCKs' academic and social needs, further isolating them from the host country (Benjamin, 2017). In Denmark, this study's context, English functions as an unofficial L2 (Lønsmann et al., 2022). This status is supported by the high proficiency of locals in English which permeates into daily life through original English-language films and TV shows.[2] This not only reinforces English as a lingua

franca in the country, but also gives TCKs and their families the impression that learning Danish is unnecessary, perpetuating the use of English.

This study anticipates that the aforementioned sociobiographical factors may play a crucial role in shaping the development of both TCKs' linguistic and sociolinguistic traits.

2.3.2. Language profile cluster

TCKs' language profile is shaped by the combined result of their linguistic history and current linguistic abilities, transcending mere linguistic significance to become markers of identity and national affiliation (Jeon, 2022). For instance, TCKs often associate their L1 with family ties and roots, as their concept of "home" constantly changes (Lijadi & Van Schalkwyk, 2017). This complexity increases when TCKs have parents in intercultural relationships. Consequently, this study considers the importance of the L1 in shaping TCKs' perception of *I love you*.

TCKs' early bi-trilingualism (Eidse & Sichel, 2004) is not always correlated with their age of mobility. Tannenbaum and Tseng's (2015) research on 54 adult TCKs found that language proficiency and dominance were not linked to AoA or mobility age, but rather to the frequency of language use. As English proficiency increased, it became the dominant language in the TCKs' linguistic repertoire, despite not being their L1 or the language of their current residence.

Research on TCKs' linguistic emotional use has yielded mixed results. Some studies suggest a reduced emotional perception of L1 in favour of English LX due to TCKs' nomadic component (Tannenbaum & Tseng, 2015), while others emphasise the emotional importance of L1 spoken at home, restricting English usage to the academic domain (Jeon, 2022).

The CoA also influences emotionality (Section 2.2.2). In this study, 72.1% of TCKs acquired their L2 (English for 68%) in a mixed or instructed context, potentially intensifying emotionality in their L2 (Section 2.1).

2.3.3. Sociolinguistic cluster

While exposed to their parents' L1, most TCKs lack significant exposure to their L1's country or the host country, resulting in a unique acculturation process within the "expatriate bubble" (Rodríguez-Bernal et al., 2023). Interaction with immediate family at home is the primary source of communication for TCKs due to distance from extended family (section 2.3.1), adhering to various FLPs, including: (1) intercultural parents adopting the "one parent one language approach" (OPOL); (2) parents with a shared

L1 adopting the "non-societal vs. societal approach" (i.e. parents' shared L1 vs. English), and (3) parents adopting a flexible approach where all shared languages are used, the so-called "Happylingual Approach" (Kopeliovich, 2013). English "leakage" (De Houwer & Bornstein, 2016) is expected due to its prevalence in international schools, parents' workplaces, and media exposure in Denmark (Dewaele et al., 2021). Consequently, this study examined TCKs with L1 Danish and at least one Danish parent.

At school, TCKs mingle with peers from similar backgrounds, fostering a sense of belonging where friendships become a vital source of emotional support (Lijadi & Van Schalkwyk, 2017). This environment is deeply rooted in the Anglophone world (Rydenvald, 2018), especially in the IB program, following an American-based curriculum (Carder, 2007), and characterised by an American-centric approach (Meyer, 2021). Therefore, TCKs must navigate conflicting emotional cues and cultural scripts regarding expressions of love. What might be considered a personal matter in their household culture could differ from American norms, where the phrase *I love you* is frequently verbalised in contexts and relationships deemed inappropriate in other cultures (e.g. Caldwell-Harris et al., 2011).

This study contributes to TCK literature by examining a larger and well-defined sample of TCKs (Tan et al., 2021), still considered "kids", minimising biases associated with retrospective methodologies. Unlike previous studies it focuses on a linguistic analysis exploring the emotional use of TCKs' language repertoire, considering the interplay between their socialisation, distinct sociobiographical features, and the impact of their current host country.

3. Research questions

The study examined the following research questions (RQs):

RQ1. Does the emotional impact of the phrase *I love you* vary across TCKs' linguistic repertoire, which language(s) elicit the strongest emotional response?

H1. It is hypothesised that the emotional impact varies across languages and that LX English contributes significantly to this perception.

RQ2. To what extent do TCKs' sociobiographical, language profile, and sociolinguistic clusters favour the variation in the perception of the phrase *I love you* across the TCKs' linguistic repertoire?

H2. It is hypothesised that, while individual clusters may contribute independently to the outcome, the optimal model arises from the interplay of variables primarily originating from the sociobiographical cluster, where L1 is anticipated to have a significant impact.

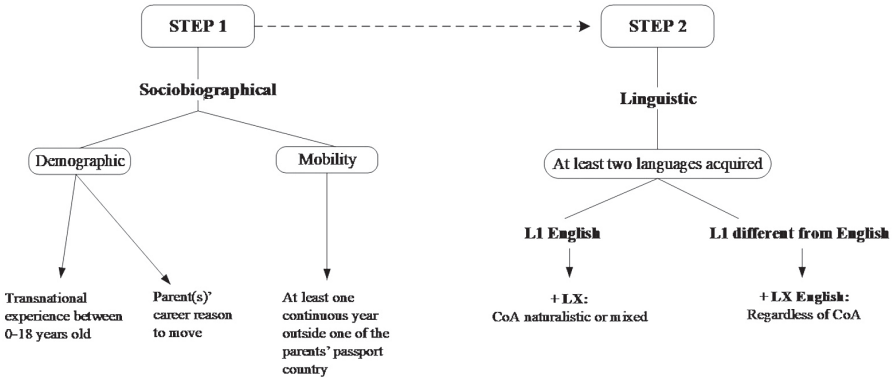
4. Methodology

The study employed a sequential mixed-methods design (Johnson & Christensen, 2020), combining quantitative data from an online questionnaire with qualitative insights from participants' open-ended questionnaire responses and semi-structured interviews. Qualitative data complemented the quantitative findings, allowing participants to share their personal perspectives. A broader qualitative analysis was beyond the scope of this study.

4.1. Participants

The study applied the following exclusion criteria (Figure 1):

Figure 1: TCK-sampling requirements



Sociobiographical criteria followed the traditional TCK definition (Pollock et al., 2017), while linguistic criteria were established considering factors influencing emotionality in an LX (Section 2.2.2). Although data from five languages were collected, L3, L4, and L5 were excluded due to their primarily instructed acquisition context, lower oral proficiency, and infrequent use, common in school-based language learning.

The study involved 276 students (123 males, 146 females, and seven non-binaries), aged 15-19 (M = 17; SD = 0.9), enrolled in the IB program across three international schools in Denmark. Participants exhibited significant international mobility, with 34.8% relocating between ages 0-2, spending an average of 9.6 years outside at least one parent's passport country (SD = 4.3). A majority (67.4%) had never resided in an English-speaking country, moving to an average of three different countries (SD = 0.9), and spending approximately half their lives in international schools (M = 8, SD = 4) due to parental professions. Additionally, 39.1% of households were intercultural couples, with 83% being LX English users (Appendix I, Sociobiographical cluster).

The participants represented 58 countries, 68 languages, and 52 different L1s. There were 31 bilinguals, 92 trilinguals, 98 quadrilinguals and 55 pentalinguals. Danish represented the largest L1 (19.9%), followed by English (12.7%). English was the second most common L2 (68%), followed by Danish (6.9%). 42.4% were bilingual L1 users and 8% were trilingual L1 users. About 45.7% reported dominance in their L1, while 39.1% reported dominance in two or more languages, including L1. Furthermore, 15.2% reported English LX dominance, which is a common outcome of international school enrolment (Appendix I, Language profile cluster).

The interviews involved seven participants (two males, four females, and one non-binary) organised into three pre-established groups: (1) strict FLP approach; (2) flexible FLP approach; and (3) LX English dominant with varying FLP approaches (Appendix I, Qualitative description of the sample).

4.2. Instruments and procedure

Quantitative data were collected via a voluntary online questionnaire completed outside school hours. The first section gathered sociobiographical information to validate the TCK profile. The second section used an adaptive version of the *Bilingualism and Emotions Questionnaire* (Dewaele & Pavlenko, 2001-2003) to collect language history data, including participants' self-reported emotional impact of the locution *I love you* across languages and the language(s) with the strongest emotional weight.

Factors of analysis were organised into three clusters.

1. **Sociobiographical:** Age of first move, countries TCK resided (at least for a year), years in international school, intercultural parents, and Danish parent(s) (Appendix I, TCKs with Danish parent[s]). Intercultural, and Danish parent(s) were coded as binary variables.

2. **Language profile:** Factors were divided into *linguistic history* and *linguistic competence*, enabling examination of the past (linguistic history) and present (current linguistic competence) influences on TCKs' perception of *I love you.*

    2.1. *Linguistic history:* AoA L2, CoA L1-L2 and subjective perception L1-L2 emotional. CoA was coded as naturalistic (outside school) or mixed (inside and outside school). L1-L2 subjective emotional perception was assessed through the statement *My L1-L2 is emotional,* recoded into three categories: high (*to a large extent, absolutely*), moderate (*more or less*), and low (*not at all, somewhat*).

2.2. *Linguistic competence:* Self-reported dominant language(s) and average self-reported oral skills L1-L2. Self-reported dominant language(s) were grouped into: L1, L1+LX, and LX. L1-L2 self-reported oral skills scores ranged from 1 (*least proficient*) to 5 (*fully proficient*); an arithmetic mean was calculated (self-rated score for speaking and listening divided by two).

3. **Sociolinguistic:** Network of interlocutors L1-L2, years living in Denmark, frequency of use of L1-L2, LX socialisation level, household linguistic mode, and English spoken at home (Appendix I, Sociolinguistic cluster). Network of interlocutors was categorised as general (*nobody, all, schoolmates, strangers*) or close (*family, friends*). Language frequency of use was classified as high (every day, several hours a day) or low (never, yearly, monthly, weekly). LX socialisation level was calculated by subtracting L1 and L2 frequency scores, with a negative result indicating higher LX socialisation. Household language modes were grouped into *monolingual* (one language) and *bi-multilingual* (two or more languages), *English spoken at home* was coded as binary (Appendix II, general FLP sample description).

One dependent variable was considered:

Language(s) with the strongest emotional impact were assessed through the question: "Does the equivalent of 'I love you' have the same emotional impact for you in your different languages, which language(s) does the equivalent of 'I love you' feel the strongest?". Multiple answers were allowed for a maximum of five languages and recoded into three groups: Group 1 (L1), Group 2 (L1+LX), and Group 3 (LX).

Interviews, averaging 45 minutes each, were conducted in English, tailored to participants' questionnaire responses (Brinkmann & Kvale, 2014). Recorded data were transcribed verbatim. Ethical approval was obtained from the university, school administrators, and adolescents prior to the data collection.[3]

4.3. Analyses

SPSS Version 28 (IBM Corp., 2021) was used for the analysis. For RQ1, frequency analysis was conducted for each language option. RQ2 employed a two-step approach: Firstly, forward stepwise multinomial logistic regression (MLR) analysis (Model 1) identified significant variables from the sociobiographical, language profile, and sociolinguistic clusters at an alpha of .05. Secondly, theory-driven factors were manually incorporated into the model, aiming for a lower *-2-Log Likelihood* compared to Model 1, considering indicators such as p-values, odd ratios, Nagelkerke R^2, and classification percentages. Non-significant variables were determined using a conservative fitting

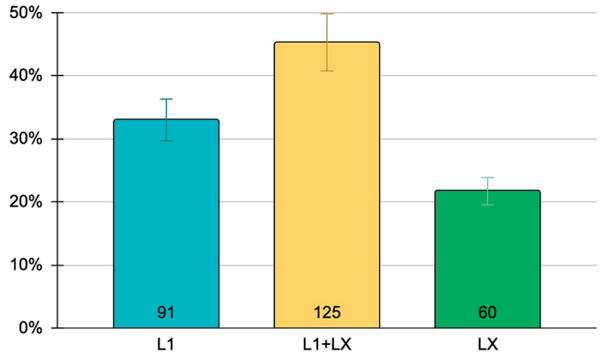
approach (p >.10), common in exploratory studies (Fisher, 1925). Parameter estimates, odds ratios, and 90% confidence intervals were used for each predictor (Model 2). A more robust predictive model was developed by combining data-driven and theoretically informed predictors (Freedman, 2009). The checks for *linearity in the logit* were satisfactory. However, high collinearity between *socialisation in L2* and *frequency of use L1* (r = -.792) and *frequency of use L2* (r = .817) was addressed, retaining the latter, due to their theoretical relevance and conceptual importance. Model fit was assessed using the *-2-LogLikelihood*, with lower scores indicating better fit and, while effect size was evaluated using Nagelkerke R^2 (Tabatchnick & Fidell, 2007).

5. Results

5.1. TCKs' emotional perception of the phrase "I love you" across languages: Identifying the language(s) that elicit the strongest emotional response

About 45.3% of TCKs perceived *I love you* to be more emotionally impactful in L1+LX, approximately one-third (33%) felt it was stronger in L1, and slightly less than a quarter (21.7%) perceived a greater impact in LX (Figure 2).

Figure 2: Percentage of the emotional impact of *I love you* across languages



Interviews and open-ended questionnaire responses supported the heightened emotional perception of L1+LX,[4] attributed to socialising and navigating emotional situations with close interlocutors in these languages.

> INF 265 (L1 Hindi, L2 English, L3 Danish, L4 German) *Hindi and English are the languages I use with family and friends at the school; I feel that I love you carries more emotional weight in them, whereas Danish and German are mainly used with people I've a weaker or no emotional attachment to.*

Some participants reported increased emotional weight in L1+LX (English) due to adapting to diverse linguistic demands at home, where L1 was used with parents and English prevailed among siblings, influenced by shared international schooling. A generational shift emerged, with parents prioritising their L1 transmission to the firstborn, but this trend declined with successive children, leading younger family members to predominantly use English, even in households with strict FLP, discouraging it.

> Mads (L1 Danish, L2 English, L3 Chinese, L4 Malay, L5 Spanish) *I´d say Danish and English are equally emotional. My dad spoke Danish to me since the beginning, but that changed with my younger sister; she's trying to learn Danish now that we live in Denmark, but we've always communicated in English.*

5.2. Sociobiographical, language profile and sociolinguistic clusters influencing variation in the perception of "I love you" across TCK's linguistic repertoire

Table 1 summarises the MLR results, identifying significant factors in the initial data-driven model and final theory-driven model for perceived emotional weight variations of *I love you* across TCKs' languages.

Table 1: Data-driven and final theory-driven MLR models: Factors influencing variations in the perceived emotional weight of *I love you* across TCKs' languages, with L1 as the reference category (N = 276)

		Model 1 Data-driven		Model 2 Theory-driven inclusion					
		L1+LX	LX	L1+LX	O.R.	90% CI O.R.	LX	O.R.	90% CI O.R.
Intercept		.68 (.65)	1.8 (.70)	.26 (.82)			.99 (.95)		
Sociobiographical cluster	Group								
Age of first move		.05* (.02)	-.02 (.03)	.07* (.03)	1.071	[1.017, 1.129]	.01 (.04)	1.010	[.943, 1.083]
Intercultural parents[a]				-.68+ (.37)	.505	[.271, .942]	.44 (.50)	1.556	[.683, 3.545]
Years in international school				.06 (.04)	1.063	[.992, 1.139]	.06 (.05)	1.065	[.974, 1.165]
Danish parent(s)[b]				-.01 (.38)	.987	[.523, 1.863]	-.98* (.45)	.375	[.177, .796]

		Model 1 Data-driven		Model 2 Theory-driven inclusion					
		L1+LX	LX	L1+LX	O.R.	90% CI O.R.	LX	O.R.	90% CI O.R.
Language profile cluster									
Linguistic history									
AoA L2[c]	0-2 years	.56 (.48)	-2.1*** (.62)	.34 (.50)	1.414	[.613, 3.264]	-2.2*** (.66)	.105	[.035, .315]
	3-7 years	-.04 (.46)	-.36 (.48)	-.04 (.48)	.957	[.429, 2.134]	-.36 (.52)	.692	[.294, 1.630]
CoA L1[d]	naturalistic			-.02 (.31)	.981	[.584, 1.647]	.44 (.40)	1.559	[.807, 3.011]
Perception L1 emotional[e]	medium			-.06 (.42)	.936	[.437, 2.001]	.46 (.53)	1.589	[.658, 3.838]
	low			.21 (.47)	1.240	[.570, 2.696]	.92 (.57)	2.531	[.984, 6.508]
Linguistic competence									
Self-reported dominant language(s)[f]	L1	-1.0* (.48)	-1.3*(.52)	-.86+ (.52)	.421	[.177, .999]	-1.0+ (.57)	.352	[.137, .905]
	L1 +LX	.26(.49)	-.20 (.51)	.52 (.51)	1.693	[.726, 3.948]	-.04 (.55)	.954	[.386, 2.356]
Sociolinguistic cluster									
Frequency use L1[g]	low			1.3+ (.72)	3.708	[1.121, 12.257]	.47 (.94)	1.605	[.341, 7.550]
Household linguistic mode[h]	monolingual	-.95** (.31)	-1.2** (.39)	-.87* (.44)	.417	[.200, .868]	-.55 (.57)	.578	[.226, 1.475]
English spoken at home[i]				.10 (.45)	1.111	[.529, 2.335]	-.90 (.57)	.406	[.158, 1.045]
-2LogLikelihood, p-value		506.117, p <.001		478.535, p <.001					
Nagelkerke R^2		.277		.355					

Note: Numbers in parentheses are standard errors. + $p \leq 10$ *p <.05. **p <.01. ***p <.001. [a] Reference Cat. is parents with different L1s. [b] Reference Cat. is TCK with Danish parent(s). [c] Reference Cat. is AoA learnt 8-18 years old. [d] Reference Cat. is CoA mixed and instructed. [e] Reference Cat. is high subjective emotional perception. [f] Reference Cat. is Dominant LX. [g] Reference Cat. is high frequency of use. [h] Reference Cat. is bi-multilingual language model. [i] Reference Cat. English spoken at home.

Table 2 shows the case processing of predictors in the final logistic regression model.

Table 2: Case-processing summary final logistic regression model (N = 276)

Predictor	Group	N	Marginal percentage
Sociobiographical cluster			
Intercultural parents	shared L1	168	60.9%
	different language L1s	108	39.1%
Danish parent(s)	yes	82	29.7%
	no	194	70.3%
Language profile cluster			
Learning history			
AoA L2	0-2 years old	117	42.4%
	3-7	115	41.7%
	8-18	44	15.9%
CoA L1	naturalistic	137	49.6%
	mixed and instructed	139	50.4%
Perception L1 emotional	high	190	68.8%
	medium	43	15.6%
	low	43	15.6%
Linguistic competency			
Self-reported dominant language(s)	L1	126	45.7%
	L1+LX	108	39.1%
	LX	42	15.2%
Sociolinguistic cluster			
Frequency use L1	high	256	92.8%
	low	20	7.2%
Household linguistic mode	monolingual	149	54.0%
	bi-multilingual	127	46.0%
English spoken at home	yes	131	47.5%
	no	145	52.5%

Model 1

A data-driven model (Model 1) using forward stepwise MLR identified predictors influencing the emotional weight of *I love you* across languages within the three clusters. Noteworthy predictors included sociobiographical: *age of first move* (β =.05, p = .050); language profile: *AoA L2* (β = -2.1, p < .001) and *self-reported dominant language(s)* for L1+LX (β = -1.0, p = 0.3) for LX (β = -1.3, p = .013), and sociolinguistic: *household linguistic mode* for L1+LX (β = -.95, p = .002) and LX (β = -1.1, p = .003).

The *-2-LogLikelihood* ratio test yielded statistical significance (p < .001), indicating its adequacy in explaining 27.7% of the variance (Nagelkerke R^2 = .277) in the perceived emotional weight of *I love you* across languages (Table 2, Model 1).

Model 2

1. The significant data-driven predictors per cluster were:

Sociobiographical

Age of first move: The odds ratio (OR) of 1.071 (p = .030, CI_{90} [1.017, 1.129]) indicated that for each one-year increase in age, the odds of perceiving *I love you* in L1+LX as stronger than in L1 increased by 7.1%.

Language profile

AoA L2: The OR = .105 (p < .001, CI_{90} [.035, .315]) suggested that TCKs who learned L2 between 0-2 years of age had an 89.5% decrease in the odds of perceiving *I love you* in LX as stronger than in L1, compared to those who acquired L2 between 8-18 years of age.

Self-reported dominant language(s): The OR = .421 (p = .10, CI_{90} [.177, .999]) suggested that TCKs reporting L1 as dominant were 57.9% less likely to perceive *I love you* in L1+LX as stronger than in L1, compared to LX-dominant peers. This trend persisted when perceiving *I love you* in LX as stronger than in L1: OR = .352 (p = .070, CI_{90} [.137, .905]), reducing the odds to 64.8% for LX having the highest emotional weight compared with L1.

Sociolinguistic

Household linguistic mode: The OR = .417 (p = .050, CI_{90} [.200, .868]) indicated that TCKs with a monolingual mode at home were 58.3% less likely to perceive *I love you* in L1+LX as stronger than in L1, compared to TCKs in bi-multilingual mode at home.

2. The theory-driven predictors incorporated into Model 1 per cluster were:

Sociobiographical

Intercultural parents: The OR = .505 (p = .071, CI_{90} [.271, .942]) indicated that TCKs with shared parental L1 were 49.5% less likely to perceive *I love you* in L1+LX as stronger than in L1, compared to TCKs whose parents had different L1s.

Danish parent(s): The OR = .375 (p = .032, CI_{90} [.177, .796]) indicated that TCKs without Danish parent(s) were 62.5% less likely to perceive *I love you* as more emotional in LX than in L1, compared to those TCKs with at least one Danish parent.

Years in international school: Although non-significant, this variable was retained in the final model (Tables 3 and 4).

Language profile

Although non-significant, *CoA L1* and *Perception L1 emotional* were retained in the final model (Tables 3 and 4).

Sociolinguistic

Frequency of use of L1: The OR= 3.708 (p = .071, CI_{90} [1.121, 12.257]) indicated that TCKs with low L1 frequency of use were 270% more likely to perceive *I love you* as more emotional in L1+LX than in L1 alone, compared to those with a high L1 frequency of use.

English spoken at home: Although non-significant, this variable was retained in the final model (Tables 3 and 4).

3. Non-significant theory-driven predictors retained in the model:

Table 3: Change in Model fit

Model comparison			
Model	*-2-Log Likelihood*	Nagelkerke R^2	Classification Accuracy
Full Model with all predictors	478.535	.355	59.1%
Reduced Model (without non-significant predictors)	427.972	.323	54.3%

Table 3 illustrates the collective impact of incorporating non-significant predictors. Despite raising the *-2-LogLikelihood*, their inclusion enhanced the comprehensiveness and accuracy of the model, as evidenced by the increased Nagelkerke R^2 (from .323 to .355) and classification accuracy (from 54.3% to 59.1%).

Table 4 presents the impact of each non-significant predictor included in the model.

Table 4: Contribution of theory-based non-significant predictors to Model 2 fit

Non-significant theory-based predictors						
Predictor	*-2-LogLikelihood* (full model)	*-2-LogLikelihood* (model without variable)	Change in *-2-LogLikelihood*	Nagelkerke R^2 (without variable)	*p*	Classification (without variable)
Perception L1 emotional	478.535	481.977	- 3.442	.345	.48	55.1%
Years international school		475.463	+ 3.072	.348	.29	58.7%
CoA L1		476.001	+ 2.534	.350	.44	58.7%
English spoken at home		480.615	- 2.08	.345	.17	59.4%

Perception L1 emotional: The *-2-LogLikelihood* decreased (-3.442), indicating an improved model fit, supported by enhanced Nagelkerke R^2 (from .345 to .355) and classification accuracy (from 55.1% to 59.1%).

Years in international school: Despite an increase in *-2-LogLikelihood* (+3.072), including it improved the overall model fit, reflected in the increased Nagelkerke R^2 (from .348 to .355) and enhanced classification accuracy (from 58.7% to 59.1%).

CoA L1: Despite a slight increase in *-2-LogLikelihood* (+ 2.534), Nagelkerke R^2 also increased (from .350 to .355), positively impacting the model's explanatory ability.

English spoken at home: Despite a decrease in *-2-LogLikelihood* (- 2.08), the model fit improved, supported by an increase in Nagelkerke R^2 (from .345 to .355).

4. Overall Model 2 accuracy:

Table 5: Classification accuracy for both models

Model 1 Data-driven					**Model 2 Theory-driven inclusion**			
Observed	L1	L1+LX	LX	% Correct	L1	L1+LX	LX	% Correct
L1	37	40	14	40.7	46	36	9	50.5
L1+LX	22	80	23	64.0	23	89	13	71.2
LX	10	22	28	46.7	12	20	28	46.7
Overall %	25.0	51.4	23.6	52.5	29.3	52.5	18.1	59.1

Table 5 compares the accuracy percentages of both models in predicting the three outcomes. Overall, Model 2 enhanced the accuracy (from 52.5% to 59.1%). Significant improvements were observed for L1 (from 40.7% to 50.5%) and L1+LX (from 64% to 71.2%). However, the accuracy of the LX level remained constant at 46.7%.

Results across the three clusters aligned with the insights from the interviews and open-ended questionnaire responses regarding the perceived emotional weight of *I love you.*

Sociobiographical cluster

Several respondents described a significant rise in English use after relocation, attributed to forming connections with new interlocutors and interacting with peers at the international school, indicating that *language frequency of use* outweighs AoA in emotional resonance within this context.

> Freja (L1 Danish, L2 English, L3 French, L4 Arabic, L5 German; 8 years old at first move) *Abroad, we resided in these communities, we barely went out, you live in a compound, a gated area. People who lived there were all international(...) In India, we had a maid because that was very normal, and I spoke English to her(...) plus attending international school every day, so it was always English.*

Participants' testimonies further supported the heightened emotional perception of L1+LX in the phrase *I love you* for TCKs with parents in an intercultural relationship, where English became the primary mode of communication.

> Mads (L1 Danish, L2 English, L3 Chinese, L4 Malay, L5 Spanish) *They* (Danish, English, and Malay) *all have the same emotional weight for me since I grew up with them; my parents mainly communicated in English since my mother* (Malaysian) *could not speak Danish* (father's language).

Having at least one Danish parent unexpectedly found greater emotional resonance in English (LX) compared to their L1 (Danish), indicating a potential "emotional erosion" of Danish, particularly notable among those with one Danish parent (Appendix I, Descriptive statistics of TCKs with Danish parents), possibly due to increased English use displacing emotional perception in Danish.

> Morten (L1 Danish, L2 English, L3 French; Strict FLP: L1) *I've noticed over time that when I speak Danish to express my deepest feelings, I won't get as emotional and I'll remain emotionless, whereas with English I can really evoke and perceive deep feelings.*

Language profile cluster

Influenced by a nomadic lifestyle, some TCKs prioritised English over their L1, potentially leading to early emotional integration of English alongside L1, despite sequential English acquisition, as noted in the quantitative analysis.

> Elin (L1 Swedish, L2 English, L3 Spanish) *In Egypt I always spoke English to the driver and the nanny (...) when my Swedish aunt visited, I spoke English to her and she'd respond in Swedish (...)'cause I was always around English.*

Other TCKs highlighted the emotional significance of L1, describing how using it in intimate, emotionally charged situations with familiar interlocutors evoked childhood memories and emotions.

> INF 209 (L1 Russian, L2 Romanian, L3 English, L4 Danish) *To me, strong emotions are associated with certain languages because of my past experiences. For example, the first time I heard I love you was in Russian; therefore, I mainly associate love with Russian.*

The relationship between perceived emotional weight and language dominance in TCKs is complex. While the quantitative analysis highlighted the significance of language dominance in the emotional perception of *I love you,* qualitative findings uncovered a more nuanced picture. Even with high L1 dominance, English dominance seemed crucial in TCKs' expression of love, with participants underscoring the linguistic versatility of English.

> Freja (L1 Danish, L2 English, L3 French, L4 Arabic, L5 German) *English is more emotional to me, it's easier to express myself, there's a lot of synonyms, whereas in Danish I feel there's one word, the right word; in English you have all these adjectives to make it emotional, whereas in Danish you need to state the truth.*

Moreover, English emotional preference seemed to transcend proficiency, with some TCKs reporting a unique sense of affinity, self-perception, identity connection, and well-being unparalleled compared to their L1.

> Sergei (L1 Russian, L2 English, L3 Spanish, L4 Danish) *Although I grew up with Russian, it doesn't accommodate for certain parts of my identity...I'm non-binary and I can communicate in English freely; gender neutrality isn't a thing in Russian, I have to conjugate every verb to the gender...it makes me feel uncomfortable.*

Other questionnaire responses revealed heightened emotional resonance despite limited linguistic abilities, suggesting associations with past experiences (memories, childhood), the influence of specific interlocutors in intimate contexts, and emotional resonance with a particular language. Moreover, limited language knowledge can facilitate connection between TCKs and their extended family.

> INF269 (L1 Tagalog, L2 English, L3 Danish, L4 German) *I don't speak much Tagalog...only bits and pieces which I learned from my parents, but greatest emotional weight is in Tagalog. For me is the power behind the words that are backed by my culture, what keeps me connected to my family.*

Sociolinguistic cluster

TCKs' testimonies echoed quantitative findings, emphasising English use prevailing over strict FLP, to the detriment of their L1(s). School and expatriate community interactions, coupled with emotional exposure to English through the media, further reinforced the importance of frequent and intense language exposure in emotional resonance.

> INF53 (L1 German, L2 French, L3 English, L4 Spanish. Strict FLP: L1-L2) *It just feels right in English as it's the language I'm most comfortable and exposed to when it comes to emotions, like my friends at school, significant other, and such; it's what I'm used to, at home too. Also shows, movies in which these subjects come up are all in English.*

Other participants expressed mixed views on the emotional weight of *I love you*, with some corroborating its widespread use, implying reduced authenticity, while others saw it as a convenient expression lacking the seriousness of their L1 equivalent, indicating that for some TCKs, L1 retained greater emotional authenticity, especially in households with strict FLPs.

> Lena (L1 German, L2 English, L3 Spanish. Flexible FLP: L1-L2-L3) *At school, 'I love you' is almost said to everyone and almost all the time, so the impact is a bit less than when you say it in German or Spanish.*

> Renata (L1 Portuguese, L2 Spanish, L3 English, L4 French. Strict FLP: L1) *For me to say 'I love you' to a friend or to my parents, it's easier than in Portuguese, which is very strong. I'm not verbal with my emotions, so I tend to stick to English because I find it much easier, less strong.*

Furthermore, participants noted discrepancies between the emotional impact of the phrase in English and its corresponding emotion script in their L1, prompting them to resort to English for expressing emotions considered too intense or unconventional in their L1.

> Elin (L1 Swedish, L2 English, L3 Spanish. Strict FLP: L1) *As a family, we're not that touchy, saying 'I love you' in Swedish is so wrong. My parents will have an entire conversation in Swedish and they'll say 'I love you' in English at the end, never in Swedish, in Swedish it doesn't come naturally, it's feels old fashioned, it's just weird.*

6. Discussion

6.1. "I love you" across TCKs' languages and the language(s) that elicit the strongest emotional response

The first research hypothesis, that the emotional impact of the phrase *I love you* varies across TCKs' linguistic repertoire, with LX English contributing to this perception, was corroborated. Nearly half of the participants reported the strongest perceived emotional response with the L1+LX (English) combination, which differs from previous studies (Dewaele, 2008; Jahangard & Holderread, 2013; Ożańska-Ponikwia, 2016) where L1 was deemed the most emotionally significant.

This outcome reflects the societal habits of TCKs, emphasising language use and resulting in a blend of L1 and LX English, ultimately forming a harmonious linguistic partnership that embodies translanguaging (García & Li, 2014).

TCKs' socialisation revolves around their family and the expatriate community, where the international school is integrated. On the one hand, the household operates as a "family bubble" (Schaetti & Ramsey, 1999) under a predefined FLP, which can vary in flexibility. Qualitative data demonstrated occasional "leakage" (De Houwer & Bornstein, 2016) of English in households with a strict FLP or blended use with the L1(s) in those following a "Happylingual Approach" (Kopeliovich, 2013).

It is noteworthy that younger siblings, primarily communicating in English despite a strict FLP at home, influenced this phenomenon (De Houwer, 2020). Moreover, TCKs whose parents were in an intercultural relationship and had adopted English as a language of communication in the absence of a shared L1 were observed. While comprising only 5% of the study (Appendix II, general FLP sample description), this indicated that these TCKs were raised in English as an LX at home, corroborating the need to include parental use of the LX to investigate the combined effects of AoA and CoA on emotional resonance (Dewaele et al., 2023).

On the other hand, the "expatriate bubble" and international school significantly influence the emotional development of TCKs, where friends play an essential role (Lijadi & Van Schalkwyk, 2017), and the frequency and intensity of exposure to English are maximised, given its status as lingua franca.

Consequently, the convergence of the household context, expatriate community, and international school explains why *I love you* in L1+LX is perceived with heightened emotionality by TCKs, as they have experienced emotional situations in these languages with diverse interlocutors. This not only validates the necessity for both languages to fulfil TCKs' emotional needs, in accordance with the Complementary Principle (Grosjean, 1997), but also explains TCKs' emotional dynamics in a language mode continuum (Grosjean, 1985), spanning from monolingual situations (e.g. parents at home or friends at school) to bilingual scenarios (e.g. intercultural parents or siblings at home). This adjustment in language use shows TCKs' ability to adapt to varying contexts and interlocutors in emotional situations. It also demonstrates the fluidity and interconnectedness of languages within these TCKs, consistent with the principles of translanguaging where linguistic boundaries are blurred (García & Li, 2014).

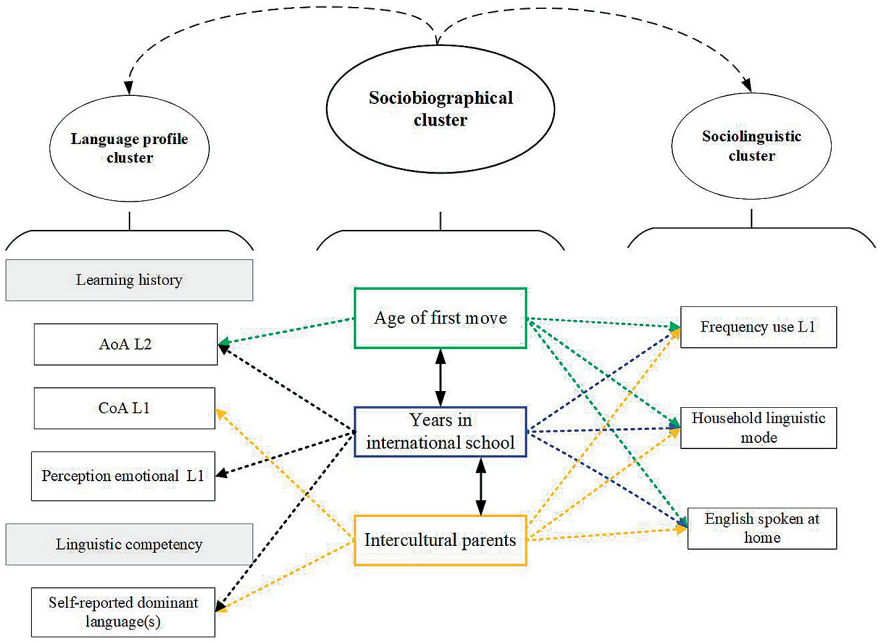
Nonetheless, it is worth exploring how TCKs maintain the emotional perception of their L1(s) in an English-dominant environment despite relocation challenges, such as reduced exposure to diverse input and limited interaction opportunities with diverse interlocutors due to geographical distance from extended family. Moreover, it is intriguing to investigate how English becomes effortlessly incorporated into TCKs' emotional linguistic repertoire. The next section explores these nuances further.

6.2. Influence of the sociobiographical, language profile and sociolinguistic cluster on the perceived emotional weight of "I love you" across TCKs' linguistic repertoire

The second research hypothesis, that the optimal model for the perceived emotional weight of *I love you* arises from integrating variables primarily from the sociobiographical cluster with an anticipated impact of L1, was supported.

Figure 3 illustrates the central role of the sociobiographical cluster, representing the driving force behind the results within the language profile and sociolinguistic clusters.

Figure 3: Scope of influence, sociobiographical cluster's impact on language and sociolinguistic dynamics



6.2.1. Influence of the sociobiographical cluster on the language profile

Figure 3 depicts the bidirectional relationship between sociobiographical factors, *age of first move*, and *years in international school*, resulting from TCKs' relocation. It emphasises the onset and cumulative duration of English exposure and the depth of immersion in the expatriate community during schooling. Despite their interdependence, these factors independently influenced the language profile cluster.

While the AoA L2 (LX English) variable aligned with expectations, indicating that an early acquisition of LX predicted a closer emotional perception to L1 due to its naturalistic CoA (Harris, 2004), the *age of first move* seemed to mitigate its effect on the perceived emotional weight of *I love you*, regardless of whether the acquisition was simultaneous or sequential. Essentially, the perception of English as a language with high emotional resonance would develop over time, rather than being influenced by

the age at which TCK began moving. Research has shown the significance of language proficiency in accurately perceiving emotions (Dewaele & Nakano, 2013; Caldwell-Harris et al., 2011). In this study, AoA was not associated with acquiring dominance (cf. Pavlenko, 2005), aligning with TCKs' unique immigration patterns diverging from the conventional correlations between AoA and dominance (Tannenbaum & Tseng, 2015). Instead, the current study proposes that *self-reported language dominance* and heightened perceived emotional perception in LX (English) originated from *years in international school,* indirectly resulting from relocation (black arrows in Figure 3). The naturalistic CoA of LX English (Harris et al., 2006) for TCKs, fostered through interactions at the international school and within the expatriate community, strengthens its dominance and perceived emotional resonance over time (Dewaele et al., 2021), establishing it as an embodied language (Dewaele et al., 2023; Pavlenko, 2005; Rodríguez-Bernal et al., 2023). The significance of self-reported language dominance on the perceived emotional weight of *I love you* aligns with previous findings (Dewaele, 2008; Jahangard & Holderread, 2013; Ożańska-Ponikwia, 2016).

However, adding L1-related predictors (*CoA L1* and *perception emotional L1*) significantly improved the model's predictive capacity, underscoring the crucial role of L1 in the emotional linguistic repertoire of TCKs. Their emotional perception of *I love you* in L1 is tied to their past, childhood memories (Marian & Neisser, 2000), roots, and a naturalistic CoA characterised by its high emotional resonance (Harris et al., 2006). Moreover, L1 maintains influence in the present by being the primary language at home and connecting TCKs to their extended family (Tannenbaum, 2005). This usage preserves HL as an emotional language, irrespective of self-reported proficiency. Qualitative data evidenced the complex interplay between language proficiency, love expression, and perception within this group. While the link between love expression and language proficiency was evident, the connection to the perceived emotional weight of *I love you* was less apparent. Participants emphasised English's emotional versatility in expressing love, contrasting it with their L1. Some even suggested that English transcended linguistic significance, contributing to personal identity and well-being (De Houwer, 2020) beyond their L1.

Conversely, some interviewees perceived *I love you* to hold equal emotional weight in LX English (self-reported dominant language) and L1, despite limited dominance in L1. This showcases the transcendence of linguistic significance beyond mere language mastery (Dewaele, 2011; Lorette & Dewaele, 2022) and suggests that the ability to perceive emotional intensity may develop separately from linguistic proficiency (Dewaele et al., 2023; Toivo et al., 2023). The cognitive and emotional aspects of perceiving *I love you* in this population may be influenced by their unique past experiences, including childhood memories, interlocutors, and the language of emotional events (Marian & Neisser, 2000).

Nonetheless, the results demonstrate that TCKs can fit both emotion scripts harmoniously (De Leersnyder et al., 2020), utilising languages in a complementary manner (Grosjean, 1997) that effectively meets their needs. By drawing on diverse linguistic resources, TCKs can uniquely express and perceive love. This helps explain intra- and inter-variability in TCKs' use of their emotional repertoire when transitioning from monolingual to bi-multilingual speech modes (Grosjean, 1985). Both their L1(s) and LX English provide unique frameworks for conceptualising emotions and a set of emotion concepts (Pavlenko, 2008) that may or may not overlap (Altarriba, 2003; Wierzbicka, 2004), as indicated by the interview participants. Interestingly, this contrasts with previous findings emphasising either emotional resonance (Tannenbaum & Tseng, 2015) or relegation of LX English to the academic domain (Jeon, 2022) in this population.

6.2.2. Influence of the sociobiographical cluster on the sociolinguistic cluster

The relationship between the sociobiographical and language profile differs from that of the sociolinguistic cluster. TCKs experience a bidirectional connection between their socialisation contexts: the third culture (expatriate community during their *years enrolled in international school*) and the domestic environment, represented by parents, whether engaged in an intercultural relationship (Figure 3).

When a TCK relocates (*age of first move*), it often involves enrolling in an international school (*years in international school*) and establishing new English-speaking networks, including interactions with domestic staff (in some cases) and within the school and expatriate community. These experiences result in frequent English use across different domains, which can have a ripple effect on TCKs' FLP, shaping the acceptance of English usage and ultimately determining the frequency of use of L1 (Figure 3).

TCKs generally perceive their L1(s) as embodied (Pavlenko, 2005); the intriguing part is the potential for LX English to also be considered embodied, given that 83% of parents are not L1 English users and nearly seven out of ten have never lived in an English-speaking country. This suggests that emotional input stems from TCKs' deep immersion in the "expatriate bubble" and its linguistic reliance on English, fostering both higher proficiency and emotional use of LX (Degner et al., 2011; Dewaele, 2010). Frequent and intense exposure to English among TCKs enhanced familiarity with the *I love you* emotion script, rendering LX English an embodied language. This aligns with previous studies (Dewaele, 2008; Ożańska-Ponikwia, 2016), emphasising the relationship between strong socialisation in LX and emotional expression (LX), as well as how the intensity and frequency of exposure heightens English emotional resonance (Dewaele et al., 2023). Therefore, despite collinearity removal, *degree of*

socialisation in LX influence persists indirectly, evident in its implicit representation through *frequency of language use*.

Furthermore, this extensive societal integration prompts adjustments in TCKs' emotional linguistic repertoire (Pavlenko, 2012), potentially leading to the incorporation of LX English into their emotional linguistic repertoire or manifesting as *emotional acculturation* (De Leersnyder, 2017). This study found that most participants incorporated LX English into the emotional domain, while some TCKs with Danish parent(s) exhibited emotional acculturation, prioritising LX emotional perception over L1 Danish. This suggests a process of secondary socialisation (Bayley & Schecter, 2003), where TCKs L1 Danish users experienced a conceptual shift (Pavlenko, 2004) in their perception of *I love you* towards LX English regardless of the FLP at home (Appendix II, Danish FLP sample description). This aligns with studies indicating that extensive immersion can gradually reshape the emotional perception of LX over time (Dewaele, 2011; Ożańska-Ponikwia, 2014).

Additionally, interview excerpts highlighted the disparities in the cultural scripts (Pavlenko, 2008) of *I love you* between some L1(s) and its frequent use in the expatriate community. TCKs manage these cultural tensions by capitalising on their use of this phrase, which they perceive as offering more flexibility and less seriousness compared to their L1(s) in certain contexts. Moreover, the unofficial L2 English status in Denmark (Lønsmann et al., 2022) and its widespread use in Danes' daily lives (Muñoz et al., 2018) may have reinforced a heightened perception of *I love you* in English, a notion supported by participants citing media influence, such as TV and films, amplifying its emotional sensitivity (Dewaele et al., 2021).

7. Conclusion

The phrase *I love you* carries heightened emotional weight for TCKs as a blend of L1+LX English, reflecting an ideal fusion aligned with an international mindset, where tensions between maintaining L1 identity and adopting a cultural hybrid are absent, showcasing TCKs' translanguaging identity (Rodríguez-Bernal et al., 2023). TCKs effortlessly navigate the emotion scripts of their home language and those of the third culture, indicating a dynamic emotional construction shaped by past and present experiences within these cultural contexts (De Leersnyder & Pauw, 2022). The ongoing need for both L1 and LX influences the constantly evolving linguistic system. TCKs' extensive exposure to English not only impacts their perception and use of L1, but also fosters a blending of the caregivers' culture with that of the expatriate community (third culture). The heightened emotional perception of *I love you* in LX English reflects emotional acculturation (De Leersnyder, 2017), a product of sustained contact within the "third culture" community. This group-centric acculturation

contributes to the process's uniqueness (Rodríguez-Bernal et al., 2023). TCKs can be viewed as bi-multicultural, combining features from various cultures (Grosjean, 2019). This blending leads TCKs to navigate a situational continuum from monocultural (mostly at home) to bi-multicultural behaviour, triggered by interactions with other bi-multicultural individuals at the international school and expatriate community, resulting in translanguaging spaces (Li, 2018).

In conclusion, TCKs' emotional language use exemplifies the fusion of past experiences with the present situation. The heightened emotional resonance of *I love you* attached to L1 and LX (English) signifies the convergence of two emotional spheres: the world shaped by their nomadic English-dominated lifestyle and the world anchored in their L1, connecting them to their past, family, and cultural heritage. This embodies the essence of TCKs: a harmonious blend of linguistic worlds coexisting within them.

The study's findings may not generalise to all TCK populations due to the small sample size of two out of three schools and the stringent eligibility criteria focused on traditional TCKs. Furthermore, the use of MLR models, which require ample observations for accurate predictions, may further constrain generalisability.

Future research on TCKs' linguistic dynamics could benefit from longitudinal studies exploring diachronic variation within the family domain and the application of new instruments to measure emotional resonance in bi-multilinguals (Toivo et al., 2023). Given the central role that family plays in TCKs' linguistic development, expanding studies on the phrase *I love you* should involve collecting data from TCKs' parents and siblings. Additionally, examining the various communication modes and contexts for conveying the love expression is crucial. Further longitudinal and multi-site research on TCKs and expatriate families could provide valuable insights into the lasting effects of nomadic lifestyles on linguistic adaptation.

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[1] L2 represents the order of language acquisition.

[2] Source Education First: https://www.ef.com/assetscdn/WIBIwq6RdJvcD9bc8RMd/cefcom-epi-site/reports/2022/ef-epi-2022-english.pdf

[3] In Denmark, the minimum consent age for research participation is 15.

[4] Interview excerpts use pseudonyms in italics for direct quotes, whereas survey responses are identified by an informant (INF) number and quotation marks.

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8. References

Altarriba, J. (2003). Does *cariño* equal "liking"? A theoretical approach to conceptual non-equivalence between languages. *The International Journal of Bilingualism*: Cross-Linguistic Studies of Language *Behavior,* 7(3), 305-322. https://doi.org/10.1177/13670069030070030501

Bayley, R., & Schecter, S. R. (2003). Introduction: Language socialization in bilingual and multilingual societies. In R. Bayley, & S. R. Schecter (Eds.), *Bilingual education and bilingualism* (pp.1-6). Clevedon: Multilingual Matters.

Benjamin, S. (2017). "*People who don't live what we live, don't understand*": *Youths' experiences of hypermobility*. [Doctoral dissertation, University of Helsinki, Turku, Finland. Migration Institute of Finland].

Bowers, J., Metts, S., & Duncanson, T. W. (1994). Emotion in interpersonal communication. In M. Knapp, & G. R. Miller (Eds.), *Handbook of interpersonal communication* (pp. 500-550). Beverly Hills, CA: Sage.

Brinkmann, S., & Kvale, S. (2014). *Interviews: Learning the craft of qualitative research interviewing* (3rd ed.). Los Angeles: Sage.

Caldwell-Harris, C. L., Tong, J., Lung, W., & Poo, S. (2011). Physiological reactivity to emotional phrases in Mandarin—English bilinguals. *The International Journal of Bilingualism: Cross-Disciplinary, Cross-Linguistic Studies of Language Behavior, 15*(3), 329-352. https://doi.org/10.1177/1367006910379262

Carder, M. (2007). *Bilingualism in international schools: A model for enriching language education*. Clevedon, UK: Multilingual Matters.

Curdt-Christiansen, X. L. (2022). Family language policy and school language policy: Can the twain meet? *International Journal of Multilingualism, 19*(3), 466-475. https://doi.org/10.1080/14790718.2022.2050242

De Houwer, A. (2020). Why do so many children who hear two languages speak just a single language? *Zeitschrift Für Interkulturellen Fremdsprachenunterricht, 25*(1), 7.

De Houwer, A., & Bornstein, M. H. (2016). Bilingual mothers' language choice in child-directed speech: Continuity and change. *Journal of Multilingual and Multicultural Development, 37*(7), 680-693. https://doi.org/10.1080/01434632.2015.1127929

De Leersnyder, J. (2017). Emotional acculturation: A first review. *Current Opinion in Psychology, 17,* 67-73. https://doi.org/10.1016/j.copsyc.2017.06.007

De Leersnyder, J., Kim, H. S., & Mesquita, B. (2020). My emotions belong here and there: Extending the phenomenon of emotional acculturation to heritage culture fit. *Cognition and Emotion, 34*(8), 1573-1590. https://doi.org/10.1080/02699931.2020.1781063

De Leersnyder, J., & Pauw, L. (2022). Emotions in social situations. In G. L. Schiewer, J. Altarriba, & B. C. Ng (Eds.), *Language and Emotion* (pp. 825-854). Berlin: De Gruyter Mouton.

De Mejia, A-M. (2002). *Power, prestige, and bilingualism: International perspectives on elite bilingual education*. Clevedon: Multilingual Matters. https://doi.org/10.21832/9781853595929

Degner, J., Doycheva, C., & Wentura, D. (2011). It matters how much you talk: On the automaticity of affective connotations of first and second language words. *Bilingualism Language and Cognition, 15*(1), 181-189. https://doi.org/10.1017/S1366728911000095

Dewaele, J-M. (2008). The emotional weight of I love you in multilinguals' languages. *Journal of Pragmatics, 40*(10), 1753-1780. https://doi.org/10.1016/j.pragma.2008.03.002

Dewaele, J-M. (2010). *Emotions in multiple languages*. Basingstoke: Palgrave Macmillan. https://doi.org/10.1057/9780230289505

Dewaele, J-M. (2011). Self-reported use and perception of the L1 and L2 among maximally proficient bi-and multilinguals: A quantitative and qualitative investigation. *International Journal of the Sociology of Language, 2011*(208), 25-51. https://doi.org/10.1515/ijsl.2011.011

Dewaele, J-M. (2018). Why the dichotomy 'L1 versus LX user' is better than 'Native versus non-native speaker'. *Applied Linguistics, 39*(2), 236-240. https://doi.org/10.1093/applin/amw055

Dewaele, J-M., Alsuhaibani, Y., Altalhab, S., & Alghamdi, W. (2023). How frequency and intensity of exposure to a foreign language boosts its emotional resonance. *International Journal of Multilingualism, ahead-of-print,* 1-15. https://doi.org/10.1080/14790718.2023.2233551

Dewaele, J-M., Lorette, P., Rolland, L., & Mavrou, I. (2021). Differences in emotional reactions of Greek, Hungarian, and British users of English when watching television in English. *International Journal of Applied Linguistics, 31*(3), 345-361. https://doi.org/10.1111/ijal.12333

Dewaele, J-M., & Nakano, S. (2013). Multilinguals' perceptions of feeling different when switching languages. *Journal of Multilingual and Multicultural Development, 34*(2), 107-120. https://doi.org/10.1080/01434632.2012.712133

Dewaele, J-M., & Pavlenko, A. (2001-2003). *Web questionnaire bilingualism and emotions*. https://www.academia.edu/2134800/Web_questionnaire_bilingualism_and_emotion

Education First. (2022). EF English Proficiency Index: *A Ranking of 111 Countries and Regions by English Skills*. https://www.ef.com/assetscdn/WIBIwq6RdJvcD9bc8RMd/cefcom-epi-site/reports/2022/ef-epi-2022-english.pdf

Eidse, F., & Sichel, N. (2004). Introduction. In F. Eidse, & N. Sichel (Eds.), *Unrooted childhoods: Memoirs of growing up global* (pp. 1-6). London: Hachette.

Fisher, R. A. (1925). *Statistical methods for research workers*. Edinburgh, Scotland: Oliver and Boyd.

Freedman, D. (2009). Issues in Statistical Modelling: In D. Freedman (Ed.), *Statistical models: Theory and practice* (pp. 209-218). New York: Cambridge University Press.

García, O., & Li, W. (2014). *Translanguaging: Language, bilingualism, and education*. London, UK: Palgrave Macmillan. https://doi.org/10.1057/9781137385765

Gareis, E., & Wilkins, R. (2011). Communicating love A sociocultural perspective. *Annals of the International Communication Association, 35*(1), 199-239. https://doi.org/10.1080/23808985.2011.11679117

Grosjean, F. (1985). The bilingual as a competent but specific speaker-hearer. *Journal of Multilingual and Multicultural Development, 6*(6), 467-477. https://doi.org/10.1080/01434632.1985.9994221

Grosjean, F. (1997). The bilingual individual. Interpreting (Amsterdam), *2*(1/2). 163-187. https://doi.org/10.1075/intp.2.1-2.07gro

Grosjean, F. (2019). *A journey in languages and cultures: The life of a bicultural bilingual.* New York: Oxford University Press.

Harris, C. L. (2004). Bilingual speakers in the lab: Psychophysiological measures of emotional reactivity. *Journal of Multilingual and Multicultural Development, 25*(2-3). 223-247. https://doi.org/10.1080/01434630408666530

Harris, C. L., Gleason, J. B., & Ayçiçeği, A. (2006). When is a first language more emotional? Psychophysiological evidence from bilingual speakers. In A. Pavlenko (Ed.), *Bilingual minds: Emotional experience, expression, and representation.* (pp. 257-283) Clevedon, UK: Multilingual Matters.

IMB Corp. (2021). *IBM SPSS Statistics for Windows, Version 28.0.* IBM Corp.

Jahangard, A. & Holderread, S. (2013). The Emotional Value of the Phrase "I love you" for Iranian Bilinguals. *Journal of Language, Culture, and Translation, 2*(1), 39-63.

Jeon, A. (2022). Growing up (un)bounded: Globalization, mobility and belonging among Korean third culture kids. *International Multilingual Research Journal, 16*(1). 65-77. https://doi.org/10.1080/19313152.2021.1951941

Johnson, R. B., & Christensen, L. B. (2020). *Educational research: Quantitative, qualitative, and mixed approaches* (7th ed.). Los Angeles, CA: SAGE.

Kopeliovich, S. (2013). Happylingual: A family project for enhancing and balancing multilingual development. In M. Schwartz, & A. Verschik (Eds.), *Successful family language policy: Parents, children, and educators in interaction* (pp. 249-275). Dordrecht: Springer Netherlands. https://doi.org/10.1007/978-94-007-7753-8_11

Lê, J. K., Tissington, P. A., & Budhwar, P. (2010). To move or not to move–a question of family? *The International Journal of Human Resource Management, 21*(1), 17-45. https://doi.org/10.1080/09585190903466848

Li, W. (2018). Translanguaging as a practical theory of language. Applied Linguistics, *39*(1), 9-30. https://doi.org/10.1093/applin/amx039

Lijadi, A. A., & Van Schalkwyk, G. J. (2017). Place identity construction of third culture kids: Eliciting voices of children with high mobility lifestyle. *Geoforum, 81,* 120-128. https://doi.org/10.1016/j.geoforum.2017.02.015

Lønsmann, D., Mortensen, J., & Thøgersen, J. (2022). Is English still a foreign language in Denmark? A question of collective linguistic identity. NyS, *Nydanske Sprogstudier, 1*(61). 126-179.

Lorette, P., & Dewaele, J-M. (2022). Interpersonal perception of emotional intensity by English first (L1) and foreign (LX) language users in audio(visual) communication. *International Journal of Multilingualism*, *21*(2), 1116-1133. https://doi.org/10.1080/14790718.2022.2144326

Marian, V., & Neisser, U. (2000). Language-dependent recall of autobiographical memories. *Journal of Experimental Psychology: General, 129*(3), 361-368. https://doi.org/10.1037/0096-3445.129.3.361

Meyer, H. A. (2021). *The global imaginary of international school communities*. Cham: Springer International Publishing.

Muñoz, C., Cadierno, T., Casas, I., & Casas, I. (2018). Different starting points for English language learning: A comparative study of Danish and Spanish young learners: Different starting points. *Language Learning, 68*(4), 1076-1109. https://doi.org/10.1111/lang.12309

Ożańska-Ponikwia, K. (2014). The influence of immersion in the L2 culture on perception of the L1 culture-specific emotion of tęsknota. *International Journal of Bilingualism, 20*(2), 116-132. https://doi.org/10.1177/1367006914537728

Ożańska-Ponikwia, K. (2016). Expression and perception of emotions by Polish-English bilinguals *I love you* vs. *Kocham Cię*. *International Journal of Bilingual Education and Bilingualism, 22*(4), 493-504. https://doi.org/10.1080/13670050.2016.1270893

Pavlenko, A. (2004). 'Stop Doing That, Ia Komu Skazala!': Language Choice and Emotions in Parent-Child Communication. *Journal of Multilingual and Multicultural Development, 25*(2-3), 179-203. https://doi.org/10.1080/01434630408666528

Pavlenko, A. (2005). *Emotions and multilingualism.* Cambridge: Cambridge University Press.

Pavlenko, A. (2008). Emotion and emotion-laden words in the bilingual lexicon. *Bilingualism: Language and Cognition, 11*(2), 147-164. https://doi.org/10.1017/S1366728908003283

Pavlenko, A. (2012). Multilingualism and emotions. In M. Martin-Jones, A. Blackledge, & A. Creese (Eds.), *The Routledge handbook of multilingualism* (pp. 454-469). Abingdon, UK: Routledge. https://doi.org/10.4324/9780203154427

Pollock, D. C., Van Reken, R., & Pollock, M.V. (2017). *Third Culture Kids: Growing up among worlds*. Boston, MA: Nicholas Brealey Publishing.

Rodríguez-Bernal, L., Cadierno, T., Doquin de Saint-Preux, A., & Lauridsen, J. T. (2023). Third Culture Kids in Denmark: Exploring code-switching patterns according to interlocutors and topic emotionality. *Journal of Multilingual and Multicultural Development*, 1-18. https://doi.org/10.1080/01434632.2023.2277862

Rydenvald, M. (2018). Who speaks what language to whom and when – rethinking language use in the context of European Schools. *International Journal of the Sociology of Language*, *2018*(254), 71-101. https://doi.org/10.1515/ijsl-2018-0034

Schaetti, B., & Ramsey, S. (1999). "The expatriate family: Practicing practical leadership". *Mobility. Employee Relocation Council.* Retrieved from: https://transitiondynamics.wordpress.com/resources-and-products/articles-and-publications/the-expatriate-family-practicing-practical-leadership/

Sichel, N., Orr, E. N., & Eidse, F. (Eds.). (2011). *Writing out of limbo: International childhoods, global nomads and third culture kids.* Newcastle-upon-Tyne: Cambridge Scholars Publishing.

Tabatchnick, B. G., & Fidell, L.S. (2007). *Using Multivariate Statistics* (7th ed.). Boston, MA: Pearson.

Tan, E. C., Wang, K. T., & Cottrell, A. B. (2021). A systematic review of third culture kids empirical research. *International Journal of Intercultural Relations*, *82*, 81-98. https://doi.org/10.1016/j.ijintrel.2021.03.002

Tannenbaum, M. (2005). Viewing family relations through a linguistic lens: Symbolic aspects of language maintenance in immigrant families. *Journal of Family Communication*, 5(3), 229-252. https://doi.org/10.1207/s15327698jfc0503_4

Tannenbaum, M., & Tseng, J. (2015). Which one is Ithaca? Multilingualism and sense of identity among Third Culture Kids. *International Journal of Multilingualism, 12*(3), 276-297. https://doi.org/10.1080/14790718.2014.996154

Toivo, W., Scheepers, C., & Dewaele, J. (2023). RER-LX: A new scale to measure reduced emotional resonance in bilinguals' later learnt language. *Bilingualism: Language and Cognition,* 1-13. https://doi.org/10.1017/S1366728923000561

Wierzbicka, A. (1999). *Emotions across languages and cultures: Diversity and universals*. Cambridge, UK: Cambridge University Press.

Wierzbicka, A. (2004). Preface: Bilingual lives, bilingual experience. *Journal of Multilingual and Multicultural Development, 25*(2-3), 94-104. https://doi.org/10.1080/01434630408666523

Appendix 1: Background information on participants

Sociobiographical cluster

Predictor	Description	*n*	%	M	*SD*	Mode
Age of first move	0-2 years	96	34.7			
	3-7 years	77	27.9	6	5	0
	8-12 years	41	14.9			
	13-18 years	62	22.5			
Countries TCK resided		276		3	0.9	3
Years in international school		276		8	4	4
Intercultural parents	yes	108	39.1			
	no	168	60.9			
Parent(s) L1 Danish	yes	82	29.7			
	no	194	70.3			
Additional sociobiographical information						
School Identifier	International school 1	200	72.5			
	International school 2	39	14.1			
	International school 3	37	13.4			
Place of birth different from parents	yes	100	36.2			
	no	176	63.8			
Binational couple	yes	112	40.6			
	no	164	59.4			
Parent(s) L1 English	yes	47	17.0			
	no	229	83.0			
Resided English speaking country	yes	90	32.6			
	no	186	67.4			
Parent(s)' profession*	Multinational	160	58			
	Diplomats and Governmental	34	12.3			
	International education	26	9.4			
	NGOs/Humanitarian Aid	9	3.3			
	Other	45	16.3			

*Two participants did not respond to this question.

Language profile cluster

Predictor	Description	*n*	%	*M*	*SD*
Learning history					
AoA L2	0-2	117	42.4		
	3-7	115	41.7		
	8-18	44	15.9		
CoA L1	naturalistic	137	49.6		
	mixed and instructed	139	50.4		
CoA L2	naturalistic	77	27.9		
	mixed and instructed	199	72.1		
Perception emotional	L1	high	190	68.8	
		moderate	43	15.6	
		low	43	15.6	
	L2	high	148	53.6	
		moderate	59	21.4	
		low	69	25.0	
Linguistic competency					
Self-reported dominant language	L1	126	45.7		
	L1+LX	108	39.1		
	LX	42	15.2		
Average self-reported oral skills	L1	276		4.7	0.6
	L2	276		4.6	0.7
Additional linguistic information					
L1	Danish	55	19.9		
	English	35	12.7		
	French	21	7.6		
	German	16	5.8		
	Italian	13	4.7		

Predictor	Description	*n*	%	*M*	*SD*
L2	English	188	68.0		
	Danish	19	6.9		
	French	12	4.3		
	Spanish	12	4.3		
	German	7	2.5		
Languages acquired	276		4	0.9	
	bilinguals	31	11.2		
	trilinguals	92	33.3		
	quadrilinguals	98	35.5		
	pentalinguals	55	19.9		
Languages spoken at home	276		2	0.6	
Number of dominant language(s)	276		2	0.6	

Qualitative description of the sample

Name[a]	Age/ AFM[b]	Years int. school[c]	Countries resided for at least one year	Years in Denmark	Languages acquired	Language(s) spoken at home	Dominant languages
Group 1: strict FLP, societal-non societal approach							
Elin	16/1	14	Sweden Egypt Denmark	1	L1 Swedish L2 English L3 Spanish	Swedish	L2
Renata	16/5	7	Portugal Spain United States Belgium Denmark	4	L1 Portuguese L2 Spanish L3 English L4 French	Portuguese	L3
Group 2: flexible FLP, *Happylingual approach*							
Lena	17/8	9	United States China Germany Denmark	6	L1 German L2 English L3 Spanish	German English Spanish	L1 L2 L3

Name[a]	Age/ AFM[b]	Years int. school[c]	Countries resided for at least one year	Years in Denmark	Languages acquired	Language(s) spoken at home	Dominant languages
Sergei	18/7	6	Russia UAE Denmark	2	L1 Russian L2 English L3 Spanish L4 Danish	Russian English	L1 L2
Group 3: LX English dominant with varying FLP approaches							
OPOL approach							
Mads	17/0	16	Malaysia China Vietnam Thailand Denmark	1	L1 Danish L2 English L3 Chinese L4 Malay L5 Spanish	English Danish Malay	L1 L2 L4
Strict FLP, societal-non societal approach (both parents Danish)							
Morten	17/12	7	UK Denmark	11	L1 Danish L2 English L3 French	Danish	L2
Freja	18/8	8	India UAE Russia Denmark	10	L1 Danish L2 English L3 French L4 Arabic L5 German	Danish	L1 L2

[a] All names used are aliases.
[b] Age of first move.
[c] Years enrolled in international school.

Background information on participants with Danish parents

Descriptive statistics of TCKs with Danish parent(s) n = 82

Danish status	*n*	%	Variable	Description	*n*	%	*M*	*SD*	Mode
Both parents	33		Place of birth different from parents	yes	9	27.3			
				no	24	72.7			
			Age of first move	0-2	9	23.7			
				3-7	8	24.2	1.4	1.1	0
				8-12	7	21.2			
				13-18	9	27.3			
			L1	Danish	31	93.9			
			L2	English	29	87.9			
			Simultaneous AoA	L1 + English	7	21.2			
			Years international school				8.3	4.1	4
			Countries resided				2.8	1	2
			Years living in Denmark				8.6	4.1	3
			English is spoken at home	yes	9	27.3			
				no	24	72.7			
			Self-reported dominant language	L1	9	27.3			
				L1+LX	15	45.5			
				LX	9	27.3			
One parent (no L1 English)	33		Place of birth different from parents	yes	18	54.5			
				no	15	45.5			
			Age of first move	0-2	14	42.4			
				3-7	10	30.3	1.0	1.1	0
				8-12	2	6.1			
				12-18	7	21.2			
			L1	Danish	12	36.4			

Danish status	*n*	%	Variable	Description	*n*	%	*M*	*SD*	Mode
One parent (no L1 English)	33		L2	English	17	51.5			
			Simultaneous AoA	Ln[1] + English	20	60.6			
			Years international school				7.6	4.3	4
			Countries resided				3	0.7	3
			Years living in Denmark				4.7		2
			English is spoken at home	yes	20	60.6			
				no	13	39.4			
			Self-reported dominant language	L1	14	42.4			
				L1+LX	12	36.4			
				LX	7	21.2			
One parent (L1 English)	16		Place of birth different from parents	yes	6	62.5			
				no	10	37.5			
			Age of first move	0-2	9	56.3			
				3-7	–	–			
				8-12	3	18.8			
				13-18	4	25.0			
			L1	Danish	9	56.3			
				English	6	37.5			
			L2	English	10	62.5			
				Danish	4	25.0			
			Simultaneous AoA	Ln[1] + English	9	56.3			
			Years international school				8.1	4.6	5
			Countries resided				2.2	0.5	2

Danish status	*n*	%	Variable	Description	*n*	%	*M*	*SD*	Mode
One parent (L1 English)	16		Years living in Denmark				5.3	3.6	2
			English is spoken at home	yes	15	6.3			
				no	1	93.8			
			Self-reported dominant language	L1	10	62.5			
				L1+LX	6	37.5			
				LX	–	–			

[1] Mother's or father's language.

Sociolinguistic cluster

Predictor	Description	*n*	%	M	SD
Network interlocutors	L1	general	156	56.5	
		close	120	43.5	
	L2	general	175	63.4	
		close	101	36.6	
Years living in Denmark	276		5.4	4.1	
Frequency of use	L1	high	256	92.8	
		low	20	7.2	
	L2	high	233	84.4	
		low	43	15.6	
Degree of socialisation	LX	High	48	17.4	
		Equal to L1	146	52.9	
		Low	81	29.3	
Household linguistic mode	monolingual	149	54.0		
	bi-multilingual	127	46.0		
English spoken at home	yes	144	52.2		
	no	132	47.8		

Appendix II: FLP background information on participants

General FLP sample description n = 276

Language mode	*n*	%	Description	*n*	%	Parents' English status	*n*	%	% sample
Linguistic mode									
Monolingual	149	54.0	Only English	32	11.6	L1	18	56.3	6.5
						LX	14	43.7	5.1
			Only parents' L1 (shared language)	117	42.4	–	–	–	–
Bilingual	127	46.0	English + parents' L1	95	34.4	L1	28	29.4	10.1
						LX	67	70.6	24.3
			Only L1x[1] + L1y[2]	14	5.1	–	–	–	–
Multilingual			English + L1x +L1y	18	6.5	L1	1	5.5	0.4
						LX	17	94.5	6.1
English spoken at home									
Yes	145	52.5	Only English	32	11.6	L1	18	56.3	6.5
						LX	14	43.7	5.1
			English + parents' L1	95	34.4	L1	28	29.4	10.1
						LX	67	70.6	24.3
			English + L1x +L1y	18	6.5	L1	1	5.5	0.4
						LX	17	94.5	6.1
No	131	47.5	Only parents' L1 (shared language)	117	42.4	–	–	–	–
			Only L1x + L1y	14	5.1	–	–	–	–

[1] Mother's language, [2] Father's language

Danish FLP sample description n =82

	n	Language mode at home	*n*		%	Description	Parents' English status	*n*	%
Danish status									
Both parents	33 (40.2%)	Monolingual	25 (75.7%)	24	72.7	Only DA[1]	–	–	–
				1	3.0	Only EN [2]	LX	1	3.0
		Bilingual	7 (21.2%)	7	21.2	DA + EN	LX	7	21.2
		Multilingual	3 (3.0%)	1	3.0	DA+ EN+ Ln[3]	LX	1	3.0
One parent	49 (59.7%)	Monolingual	14 (29.1%)	1	7.1	Only DA	–	–	–
				3	21.4	Only EN	L1	3	21.4
				3	21.4		LX	3	21.4
				7	29.2	Only Ln	–	–	–
		Bilingual	29 (58.3)	7	24.2	DA+Ln	–	–	–
				19	65.5	DA +EN	L1	13	68.4
							LX	6	31.6
				3	10.3	Ln + EN	LX	3	10.3
		Multilingual	6 (12.5%)	6	100	DA+ EN+Ln	LX	6	100

[1] DA= Danish, [2] EN = English, [3] Ln = Mother's or father's language.