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ORIGINAL ARTICLE

Languaging to trigger change: second-order intercultural conversations with urban youth of Maya descent

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The paper presents an applied research project that looks into whether the Yucatec Maya language can become an identity factor for the urban youth of Maya descent inhabitants of a marginal urban area in southeastern Mexico, against the tendency towards the Yucatec Maya language loss in the urban environment. Our starting point is Maturana's idea that through conversations –that emerge through languaging and emotioning– human worlds are built and maintained; our lives are intertwined in interactional networks, therefore we only exist as human beings through conversations we hold with other human beings. We go on to explore the types of connection to the Maya culture and language in the case of the young men and women who took part in a workshop "My life and the Maya culture: roots and relations", and how this connection is constructed through interactional networks. The conversations are seen as potential triggers of changes in representations and attitudes towards the minorized language and culture. We also maintain that for the changes to be sustainable, the rest of the local society, viewed as a cultural multiverse (Krotz, 2004), is to recognize Maya speakers as legitimate others (Maturana & Nisis, 2014), so that the non-Maya groups are also to engage to ensure the structural coupling between the diverse parts that conform the multiverse. Our role as researchers, then, is not that of external observers; we assume our role as participants in interactional networks who seek to contribute to a broader acceptance and respect towards the minorized language and its speakers.

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1. Introduction: the antecedents of the research.

In 2012 a research was conducted in a marginalized urban area in Merida, the capital of the Mexican state of Yucatan. It took place in a high school created by a local university for young men and women from poor urban families, so that they could have better educational and life opportunities, as well as a more productive interaction with their urban community. The study, based on the interdisciplinary complex systems approach (García, 2006), explored three interdependent dimensions of the youth from the urban area mentioned: young men and women as subjects with rights, knowing subjects, and relational subjects (Sidorova, Quiroz & Rivero, 2013). While these dimensions have proven to be heuristically useful to understand those young men and women as

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personal and social subjects that live in precarious economic and social conditions, the research results also revealed that there was one more dimension that required an in-depth exploration and that was not originally considered: young men and women's cultural roots, since the majority of them were of Maya descent and had at least one close relative who spoke Yucatec Maya.

In the urban context characterized by discrimination of the Maya speaking population (Lizama, 2012; Lizama & Bracamonte, 2014; Iturriaga, 2016), this dimension has tended to be invisibilized. Example of this is the fact that the high school where the young men and women studied is targeted at the youth that is described as living in precarious economic and social conditions; it does not focus on the cultural background of the youth, nor it considers it as a valuable resource that can be used to strengthen the young men and women's personal and sociocultural identity. In the meantime, there has been an ongoing process of cultural loss in the urban area where the young men and women live; the transmission of the Yucatec Maya language is particularly endangered. The evidence of this tendency are the following data obtained from the questionnaires applied to the high school students in 2012 and 2017 (see Table 1). This information goes along with the results of Lizama's research in the same urban area; according to this anthropologist, in Merida there are progressively fewer young families whose heads of household speak Yucatec Maya (see Lizama, 2012).

Table 1
High school students and the Yucatec Maya language

	2012	2017
Students that have at least one Maya speaking relative (%)	61%	68.3%
Students that understand Yucatec Maya (%)	16%	11%
Students that speak Yucatec Maya (%)	4.4%	2.3%

In this context, we found it pertinent to design a new research project that would help understand the young men and women's view on the Maya culture and the Yucatec Maya language, based on their own experience as descendants of Maya speakers, born in Mérida. The three dimensions explored in the new project are: the youth's lifeways and representations of the present; intergenerational communication and memory transmission in the young men and women's families; personal networks and the presence of the Maya culture in them. These dimensions have been explored through a participative workshop with high school students. The epistemic framework for this project and the workshop has been provided by Maturana's thinking on human nature, language, emotions, and conversations.

2. Why Maturana? The role of languaging and emotioning in becoming/being human and in constructing social domains

Maturana (1989; 1990; 2014a; 2014b) has created a framework of ideas that present living beings as determined by their biological structure (autopoiesis) and structurally coupled to the environment (that can only trigger changes within living beings but not determine or interfere directly with their autopoiesis). The distinctive characteristic of human beings (as living beings) is their existence in "relational and interactional space" or "psychic space" (Maturana & Nisis, 2014, p. 49):

> it is here, in this relational/interactional space, where we live the dimensions of our human life that we call psychological, and where we turn human beings as living systems in structural coupling with an environment that we contribute to create with others as we create our dimension (p. 49; free translation)[1].

The relational or interactional space is where conversations with others occur; through them we become human beings: "In this process, the children grow up as human beings weaving language and emotionalism into their life, in a continuous flow of intertwining of relational domains (emotions) and recurrent consensual coordinations of behavior (language) that we call conversations" (Maturana & Nisis, 2014, pp. 46-47; free translation)[2].

Through conversations the realities we live in emerge: "The world we live in is [...] a world that emerges in the dynamics of our operating as human beings" (Maturana, 2014a, p. 31; free translation)[3], that is our operating in conversations, where languaging and emotioning occur. There are multiple domains of reality that are constructed through languaging and emotioning; they are also our "action domains" –"dominios de quehacer"– that "constitute all our spheres, modes, and systems (institutions) of human existence" (Maturana, 1989, p. 79; free translation)[4].

None the less, not all the realities –or domains– that we create can be called social. According to Maturana (1990; 2014a; 2014b) and Maturana & Nisis (2014), the social domain only can be based on the emotion called love; it implies the recognition of other "as a legitimate other in coexistence with oneself under any circumstance" (Maturana & Nisis, 2014, p. 45; free translation)[5]. Love is opposed to aggression and indifference –where the other "has no presence, and what happens to him or her is outside our concerns" (p. 45; free translation)[6]. The latter is an emotion of relevance in the case we present, since we sustain that it is this emotion that underlines currently the process of invisibilization of Maya people, their lifeways and language, in the urban environment.

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[1] "...es aquí, en este espacio relacional/interaccional, en donde vivimos las dimensiones de nuestra vida humana que llamamos psicológica, y en donde nos tornamos seres humanos como sistemas vivos en acoplamiento estructural con un medio que contribuimos a crear con otros al crear nuestra dimensión" (Maturana & Nisis, 2014, p. 49).

[2] "En este proceso, los niños crecen como seres humanos entrelazando lenguaje y emocionalismo en su vida, en un flujo continuo de trenzamiento de dominios relacionales (emociones) y recurrentes coordinaciones consensuales de conducta (lenguaje) que denominamos conversaciones" (Maturana & Nisis, 2014, p. 46-47).

[3] "El mundo en que vivimos [...] es un mundo que surge en la dinámica de nuestro operar como seres humanos" (Maturana, 2014a, p. 31).

[4] "constituyen todos nuestros ámbitos, modos y sistemas (instituciones) de existencia humana" (Maturana, 1989, p. 79).

[5] "como otro legítimo en coexistencia con uno mismo bajo cualquier circunstancia" (Maturana & Nisis, 2014, p. 45).

[6] "no tiene presencia, y lo que le suceda a él o ella está fuera del dominio de nuestras preocupaciones" (Maturana & Nisis, 2014, p. 45).

Finally, the concept of culture is necessary too, because the phenomenon we are looking at has to do with the Maya culture and the Yucatec Maya language, and takes place in a cultural multiverse (Krotz, 2004) that has been historically constructed in an asymmetrical way. Maturana & Nisis (2014) define culture as "closed networks of conversations, that is, closed networks of recursive coordinations of doings and emotions" (p. 51; free translation)[7]. They add: "Different cultures imply different psychic spaces, that is, different configurations of conscious and unconscious relational/interactional dimensions lived through different configurations of emotionality" (p. 51; free translation)[8]. According to Maturana & Nisis, language is pivotal to the cultural transmission and preservation:

> The language, as a cultural element, together with lovability, as biological trait, constitutes the nucleus of the mode of living preserved from generation to generation that defined us as human beings in our ancestral evolutionary history in the last three or more millions of years (p. 51; free translation)[9].

Still, in concrete, historic, and situated cases, as the one presented in this paper, we can face the circumstances that are adverse to the preservation of a concrete culture and its language due to the incongruence between the human beings and their environment, as we can observe in the case of urban Maya speakers and their descendants in Merida seen as a cultural multiverse that is highly asymmetrical.

So, there is a problem that needs a solution as to what can be done in the multicultural settings where the lack of a true recognition of others (Maya speakers, in this case) as legitimate others triggers processes of cultural change –re-socialization/re-enculturation (Krotz, 1997)–, which implies the abandonment of the language that defines the culture and provokes the loss of self-esteem in many of the speakers and their descendants, as well as indifference even within the group itself (for example, on the part of some members of the younger generation born in the city). We deem it a particularly relevant issue to reflect on and look for answers, since we believe with Lizama (2012, p. 15), that the language is the most intimate element of any culture, and, as Sánchez Carrión (1985) states, "Without us the language does not exist. But without the language we do not exist either" (p. 332; free translation)[10].

Based on the conceptual elements and the issue raised above, we go on to explain the idea of the workshop, aimed at exploring the connection with the Maya culture and language in the case of young men and women of Maya descent, students of a high school targeted at the poor urban youth in Merida, the capital city of the Mexican state of Yucatan. After that we will present the workshop results.

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[7] "redes cerradas de conversaciones, es decir, redes cerradas de coordinaciones recursivas de haceres y emociones" (Maturana & Nisis, 2014, p. 51).

[8] "Diferentes culturas implican diferentes espacios psíquicos, es decir, diferentes configuraciones de dimensiones relacional/interaccionales, inconscientes y conscientes vividas a través de diferentes configuraciones de emocionalidad" (Maturana & Nisis, 2014, p. 51).

[9] "El lenguaje, como rasgo cultural, junto con amorosidad, como rasgo biológico, constituyen el núcleo del modo de vida conservado generación tras generación que nos definió como seres humanos en nuestra historia evolutiva ancestral en los últimos tres o más millones de años" (Maturana & Nisis, 2014, p. 51).

[10] "Sin nosotros el lenguaje no existe. Pero sin lenguaje nosotros tampoco existimos" (Sánchez Carrión, 1985, p. 332).

3. Workshop with the urban youth of Maya descent: creating an environment to trigger change

Maturana (2014a) has argued that human beings are autonomous and, at the same time, are always in relation with their circumstances (p. 30); the former (human beings) and the latter (environment) are co-constitutive, that is why human beings are absolutely necessary (Maturana & Pökrsen, 2004, pp. 59-60) for conservation and change of any human, including social, domain. Maturana (2014b) explains: "As far as it is individual behavior of its members what defines a social system as a particular society, the characteristics of a society can only change if the behavior of its members changes" (p. 31; free translation)[11].

As we have mentioned at the beginning of the paper, the research we've conducted and the workshop we held are the result of our own reflecting on the fact that there has been invisibilization and silencing of the presence of the Maya culture, language and its speakers in Merida; this silencing also occurs within the families of some students, among their Maya speaking relatives. It is important to mention that the majority of the students' Maya speaking relatives are migrants from rural areas, so as they settle in the city –and although they try to reproduce their rural lifeways–, in many cases behavioral –as well as emotional and sometimes ideological– changes take place.

Based on Maturana (2014b, p. 31), we can explain these changes –which are called re-socialization or re-enculturation (Krotz, 1997)– as the result of interaction that rural migrants engage in outside the social system of origin. In fact, according to Krotz (2004), the Maya people have been historically involved in a series of explicit and also tacit or silent conversations (Krotz, 2004) with the non-Maya speaking inhabitants of Yucatan[12], many of whom do not recognize Maya speakers as legitimate others (see also Lizama, 2012; Iturriaga, 2016). In Merida –a predominantly non-Maya speaking environment[13]– the situation is particularly acute, since the contact of Maya speakers with those who are not is much more frequent and happens in almost all interactional spheres.

We can state, then, that the city is characterized by the presence of multiple interactional spheres which, from Maturana's point of view, cannot be called social. Therefore, we sustain that a further change is necessary –and even urgent–, since the interactions between Maya and non-Maya population often produce suffering, as far as they are based on indifference and in certain cases aggression towards the former, but not love. Maturana (2014b, p. 31) argues that "the reflection in the language" is another way how changes can be brought about; as any languaging, though, the reflection in the language (a rational process) has the emotional basis. That is why to produce

[11] "En la medida en que es la conducta individual de sus miembros lo que define un sistema social como una sociedad particular, las características de una sociedad sólo pueden cambiar si cambia la conducta de sus miembros" (Maturana, 2014b, p. 31).

[12] Referring to Yucatan, not just Merida, Krotz (2004) argues that its inhabitants take part "constantly in something we could call *implicit or silent cultural dialogues*" (p. 41; free translation)/"constantemente en algo que podríamos llamar *diálogos culturales implícitos o silenciosos*". These silent dialogues are not face-to-face conversations properly, but encounters between different modes of life that can be found in Yucatan. Therefore, communication between individuals and groups is both verbal and non-verbal; in these communications different attitudes towards the other are expressed, including stereotypes, prejudices, and contempt. The non-verbal communication can be found in "discriminatory customs that are so rooted that they seem 'natural', in institutions, in norms that seem consensual even to those who have never been consulted about them and are rather their victims and not their beneficiaries" (Krotz, 2004, p. 41; free translation)/"costumbres discriminatorias tan arraigadas que parecen 'naturales', en instituciones, en normas que parecen consensuales incluso a quienes nunca fueron consultados acerca de ellas y son más sus víctimas que sus beneficiarios".

[13] According to the last census of the National Institute of Statistics and Geography (INEGI), the percentage of speakers of indigenous languages in Merida (mostly speakers of Yucatec Maya) is 7.7% of the city population.

change, so that a new *social* domain can emerge, we must generate new recurrent interactional networks, supported by a special sort of emotioning (based on love) and languaging (reflections in the language).

The workshop we describe below has been designed to generate this kind of interaction, so that the young men and women could reflect in the language about the worlds they inhabit and their mode of living (lifeways), the presence of the Maya culture and language in them, the role of languaging and emotioning in their interactional spaces, including their families, personal networks and the workshop itself, as well as the changes they can trace in their connection with the Maya culture and language as the result of the workshop. Our role –the role of the researchers– in the conversations is that of participants who as inhabitants of Yucatan, but not Mayas, recognize our part in the configuration of the psychic space where changes need to be produced so that every person and group would be recognized as a legitimate other, and true interculturality –on equal terms– guaranteed. This interculturality would mean the existence of structural coupling between culturally different groups, as well as the emergence of dynamic and stable interactional networks, where the conversations, preferably bi- or multilingual, can be held, based on mutual recognition and reciprocity.

We must clarify that we conceive the students' and our –the researchers'– conversational activity during the workshop as reflections in the language, based on the following explanation by Maturana (2014b): "The reflection in the language occurs every time our interactions make us describe our circumstances triggering in us a change of domain that defines a perspective of observation" (p. 31; free translation)[14]. This is a clearly second-order cybernetic process, as far as it implies, according to Scott (2018), that "the observer is explaining herself to herself in a never-ending hermeneutic narrative and conversational circularity, a spiral of storytelling, agreements, disagreements, understandings and misunderstandings" (p. 4). What's the importance of the reflections in the language? As Maturana (2014b) argues,

> What is significant about the reflection in the language is that it makes us contemplate our world and the world of the other and make from the description of our circumstances and that of the other part of the environment in which we conserve identity and adaptation. The reflection in the language brings us to see the world we inhabit and to accept it or reject it consciously (p. 32; free translation).[15]

4. "My life and the Maya culture: roots and relations": types of connection to the Maya culture

The participants of the workshop, which we called "My life and the Maya culture: roots and relations", were eight students who took part in ten conversational sessions. Firstly, we situate them according to the type of connection to the Maya culture and language; as we discovered, it was not homogeneous and was a clue to the languaging and emotioning during the conversations. Secondly, we present their reflections in the language about the nature of their connection and look into the effect of the workshop on how each of them feels and thinks about the Maya culture and language.

[14] "La reflexión en el lenguaje ocurre cada vez que nuestras interacciones nos llevan a describir nuestras circunstancias al gatillar en nosotros un cambio de dominio que define una perspectiva de observación" (Maturana, 2014b, p. 31).

[15] "Lo significativo de la reflexión en el lenguaje es que nos lleva a contemplar nuestro mundo y el mundo de otro y hacer de la descripción de nuestras circunstancias y la del otro parte del medio en que conservamos identidad y adaptación. La reflexión en el lenguaje nos lleva a ver el mundo en que vivimos y a aceptarlo o rechazarlo conscientemente" (Maturana, 2014b, p. 32).

The typology we constructed is based on the experiences and stories the students narrated as part of the workshop conversations, which had an emergent character; in some sessions we proposed activities that could trigger reflections on the lifeways, intergenerational communication, and personal networks. The students brought photographs which represented their lifeways, drew family trees, analyzed their own personal networks. During the sessions, while the students shared their material, experiences, stories, knowledge, and ideas, we –the researchers– ceded the ground, so that the young men and women could create their own psychic space in which they could feel free and motivated to discuss the issues they considered valuable, make each other questions, listen, remember things, re-create their mutual bonds, as well as mutually re-cognize their common condition as the descendants of the Maya people who were born in the city and whose life circumstances have influenced their personal connection to the culture of their Maya speaking relatives.

The first type of connection can be called "Living the culture". Only one girl out of eight students presented this type of connection. She is happy and extrovert, likes dancing *jarana* (a traditional Yucatec dance), playing sports, taking care of pets, as well as photographing sunsets and nature. She has a very extended family in the city and in various faraway Yucatec villages, where mostly Yucatec Maya is spoken. She likes visiting her relatives there; she's especially keen on accompanying her granddad to his *milpa* where he cultivates honey. Her native language –and the language of her family– is Yucatec Maya, and she started speaking Spanish at school. She remembers that her mother had to accompany her, because the teachers didn't understand what she was saying, while her classmates shunned her: "When I learned [Spanish], I would ask them: 'Why do you go away?' 'You scare us!' [They would answer]." She also recollects being criticized for being "too Yucatec".

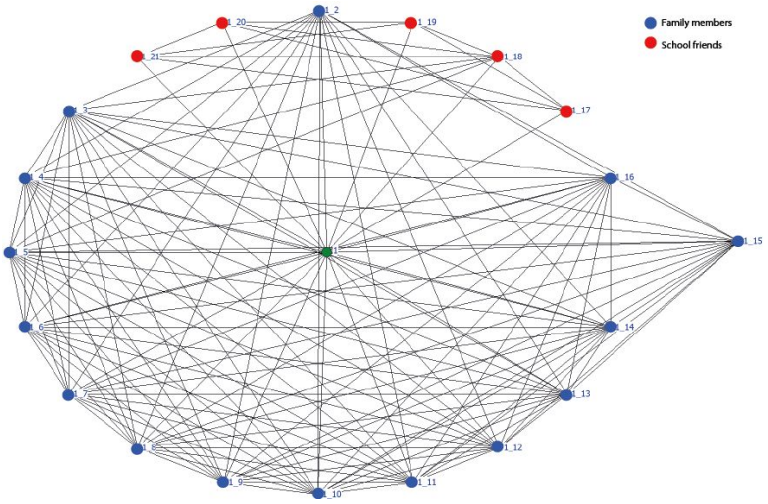

Figure 1. The girl's personal network is comprised of family members (blue dots) and school friends (red dots).

How is the world constructed in the case of the girl with the first type of connection to the Maya language and culture? The girl's reality is created in Yucatec Maya; there is a constant natural transmission of the Maya culture and language in her family, so that the younger generation gradually passes from a receiver role to that of an equal cultural interlocutor and transmitter. All generations participate in storytelling, all members have stories to tell that have happened to them

–both in rural and urban environments– that only can be interpreted and explained within the framework of the "unimaginable" (the girl's term) Maya culture.

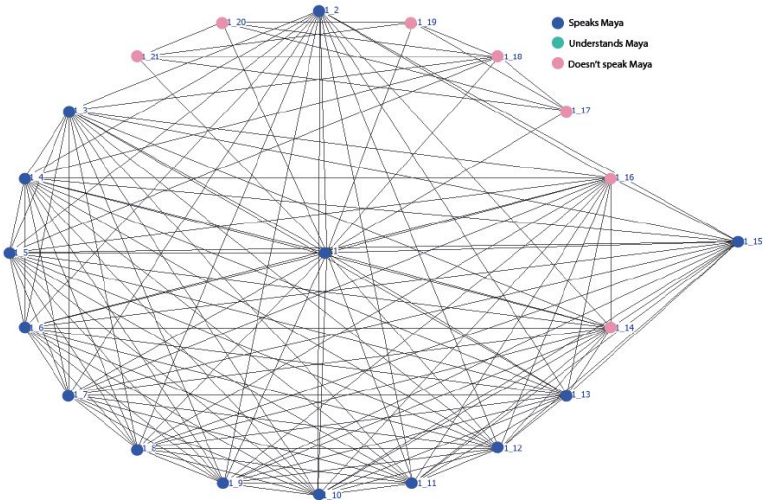

Figure 2. The majority of the family members are Maya speakers (blue dots); those who don't speak (pink dots) Yucatec Maya are the school friends and two of the relatives.

Examples of family conversations are everyday conversations, accompanying parents, grandparents, and great grandparents in their everyday activities; special occasions (family celebrations, rituals); storytelling on the part of the older generations to the younger; storytelling within the younger generation ("slumber parties" where stories are shared). The "unimaginable" things –that can be explained in cultural terms– happen to all generations, so that the younger family members are the co-creators of the culture and full-fledged interlocutors in the intergenerational conversations. There is affection to the Yucatec Maya language, as well as a strong determination with the family, assumed in a conscious way, as to the necessity of the continuity of the language transmission to the new generations in the rural and in the urban environment, no matter what.

We have named the second type of connection to the Maya culture and language "One family-two worlds"; this is a type of connection three out of eight students –one boy and two girls– presented. The boy likes to make jokes, have fun, and play sports. Some of the members of his very extended and united family live in a small Maya village, which he visits on vacations. There he sleeps in a traditional thatched Maya house and listens to the stories that his relatives tell at night. He loves the freshness of his grandparents' house and that of the churches which one can be found in small towns and villages.

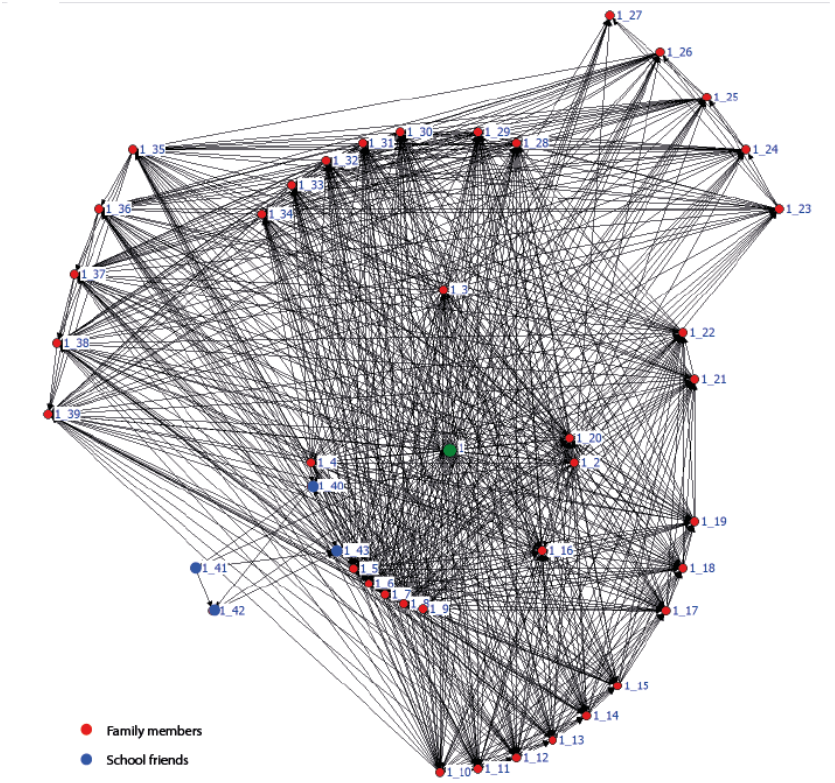

Figure 3. In this representation of the boy's personal network, note the extension of the family (red dots). Blue dots correspond to the boy's school friends.

The two girls have similar tastes, for example, both of them like sports. They are in charge of their siblings, helping them with their homework. They help their mothers to clean the house and cook, and have to be extremely organized to cope with both school and household chores. They love visiting their extended families in the small towns that are, in fact, not far away from each other. They love traditional *fiestas*, dancing *jarana*, attending to agricultural rituals; they enjoy it when people collaborate, share food, and gather together. One of the girls spoke Yucatec Maya in her childhood, when she spent several years with her grandmother in a small town; she says that she has forgotten it, since she had to learn Spanish to be able to study in Merida. The other girl speaks some Yucatec Maya, because her parents and older brother usually talk to her in this language, but she says she has problems with her accent, and while she understands it, she doesn't speak it fluently.

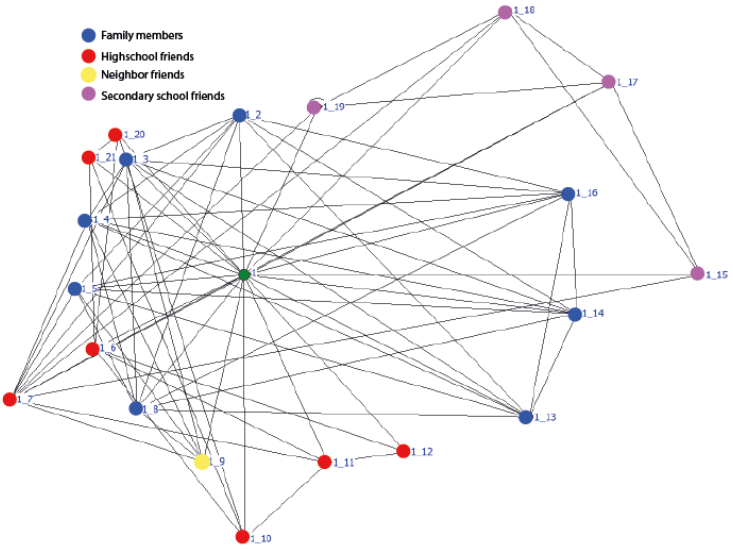

Figure 4. This girl included family members (blue dots), high school friends (red dots), secondary school friends (purple dots), and one neighbor (yellow dot) in her personal network. Most of the closest relations are with the family members (five out of eight family members).

The three (the boy and the two girls) agree that there is nothing compared to the rural ambient, which is quiet and peaceful, as well as the churches, the food, and the extended family gatherings that are part of the rural ambient.

In the case of the second type of connection to the Maya language and culture, personal networks reveal a significant number of Maya speaking relatives. Still, there is a division of the worlds the families inhabit: rural (where the culture and language have more opportunities to be preserved) and urban (where re-socialization takes place at a greater pace); that of the older generation and that of the younger. The division is not absolute, though, since there is still an important continuity of some cultural elements that conform the mode of living of the younger generation as well: family organization marked by reciprocity and solidarity, sharing and accompanying. This way the continuity of the extended families and rural-urban spaces they live in is guaranteed in the present.

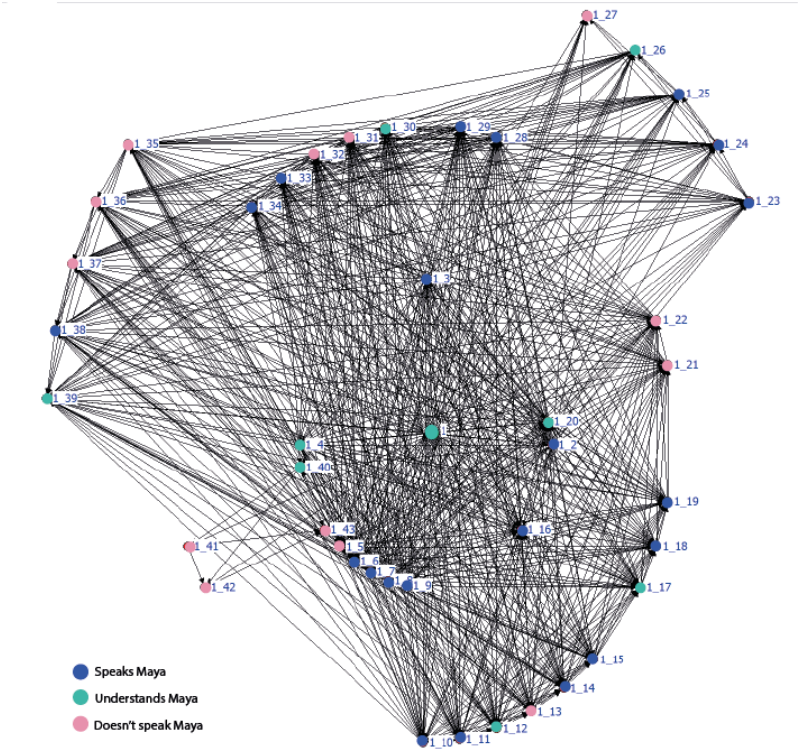

Figure 5. See the extension of the Maya speaking relatives (blue dots) in the boy's family. The boy himself understands Yucatec Maya but doesn't speak it, as well as some other individuals (usually relatives belonging to his own generation) in his personal network (green dots). The pink dots represent those individuals who do not speak nor understand Yucatec Maya (school friends and some relatives who belong to the younger generation).

Yucatec Maya is the language of the older generations on both sides (father's lineage and mother's lineage). These generations have experienced the world that is constructed in Yucatec Maya and they transmit stories and the sapience they have accumulated to the younger generations; their narratives can be both in Yucatec Maya and Spanish, depending on the context of the conversation.

It's common that the younger generation members don't have full domain of Yucatec Maya; their reality is constructed in a diglossic way, usually with a day-to-day use of Spanish at school and during recreational activities, and as receivers of messages in both Spanish and Yucatec Maya at home, since it is the language of the older generations. The comprehension of Yucatec Maya, the knowledge of rural lifeways, traditions and practices, and frequent intergenerational communication make the younger generation members understand and empathize with the stories they are told. Still, they are not bearers of the same sort of experiences as their older relatives, they are more of active receivers of the stories who can perform certain cultural practices, as well as share the sensibility and affection for the reciprocal practices, celebrations, rituals. They are dynamic urban young people who also show fondness for peaceful rural life, close to the family and the nature.

The third type of connection to the Maya culture and language –"One pivotal bond"– is the case of just one boy. He is a quiet and responsible person. His family is the source of support for him and his two younger siblings. Although he doesn't have the same extended family and family organization as the students described above, there are a lot of shared activities in his family, like going downtown,

visiting archaeological sites and cultural exhibitions. His father speaks Yucatec Maya; the boy has built a strong bond with him, so they converse a lot. In the past the boy's granddad –a real *mayero*– also liked to share stories in Yucatec Maya; he did it in a very expressive way, while the boy's father translated the stories to his son. In his dad's hometown there is an aunt who also speaks Yucatec Maya, but the boy rarely goes there. The boy's mother understands the language; his uncle (his mother's brother) can speak it, but communication with the uncle is infrequent.

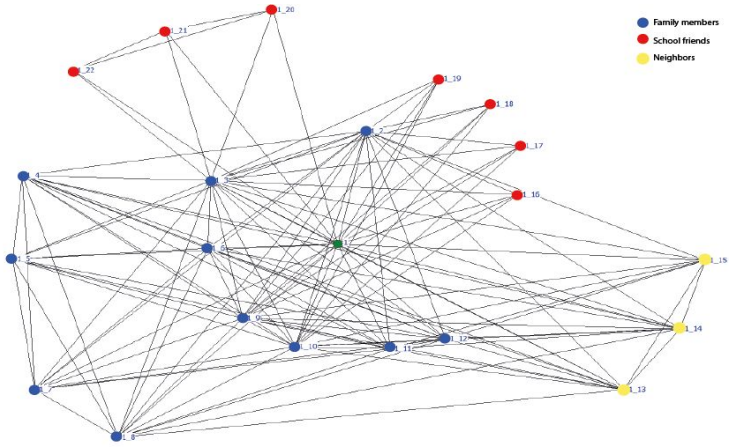

Figure 6. The three types of cliques in the boy's personal network are the family members (blue dots), school friends (red dots), and neighbors (yellow dots).

While having Maya speaking relatives, this boy has a different mode of living. What characterizes his connection to the Maya culture and language is the existence of one significant other: his father, who is a Maya speaker and is also keen on reading and investigating about the Maya culture. His children listen to his stories and reflections about the Maya culture on a daily basis. Those are conversations about the father's life (childhood, youth, his native town) before migrating to Merida, and about Maya practices, history, customs, and what has happened to them in the urban environment. The boy's dad maintains some cultural practices that have made him "regain happiness" (the boy's term) in the city: growing plants, speaking Yucatec Maya with some neighbors, and talking about the Maya culture with his children. This way, the bond with the father is the main connection, source of knowledge, empathy, and what we might call love for the Maya culture.

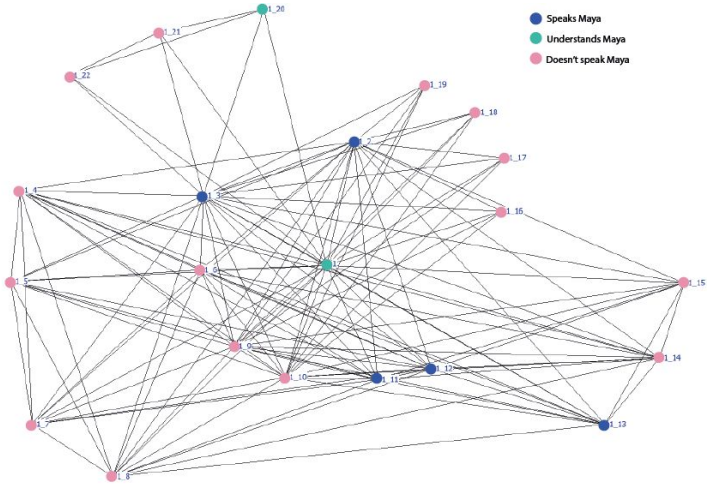

Figure 7. The boy singled out four Maya speaking family members, as well as one neighbor who speaks Yucatec Maya (blue dots). The boy himself represented himself as a person who understands the language (green dot). Pink dots are for those who don't understand Yucatec Maya.

Finally, there is a fourth type of connection: "The Maya culture as an element of the family life". Three girls had this type of connection. The three are nice and friendly, have a positive attitude and want to learn more about their regional, including the Maya, culture.

One of them is an extrovert who loves music and video blogs. She wants to study Tourism, so she sees the Maya culture as a powerful attraction for the foreigners and considers that all cultures and languages must be equally respected and preserved. She took part in the workshop along with her friend who has the same type of connection to the Maya culture and language. This second girl is more of an introvert and describes herself as a serious person; she is more keen on Math than Humanities, even so, being "inseparable", the two friends like to participate in different activities together. Each girl has a Yucatec Maya speaking grandmother (their dads' mothers); their grandmothers and some other relatives live outside Merida.

The third girl in this group is the best friend of the only Yucatec Maya speaker of the workshop participants (with the first type of connection to the Maya culture and language), so the latter has tried to teach her some Yucatec Maya. In general, the girl feels that her family hasn't taught her enough about this culture and language. She also had a school teacher who promised his students would learn Yucatec Maya, but he never taught it to them.

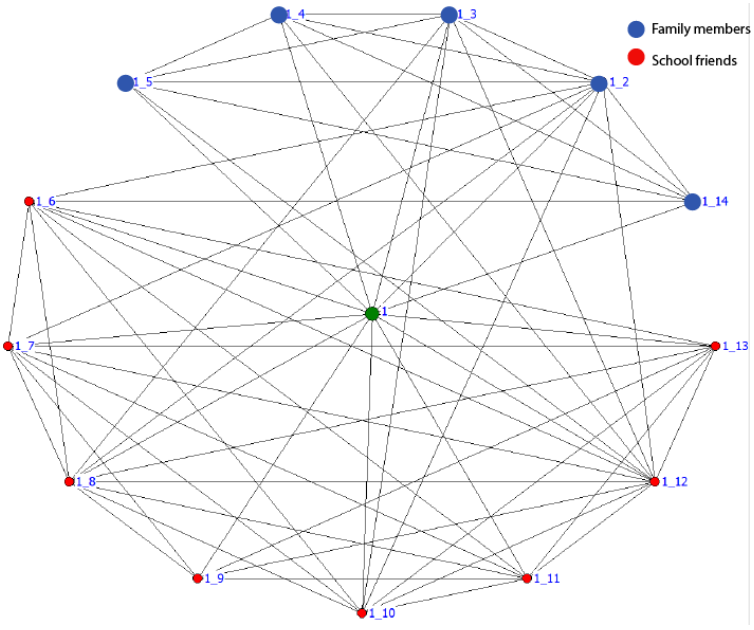

Figure 8. In her personal network, one of the three girls with the fourth type of connection to the Maya culture and language included family members (blue dots) and school friends (red dots).

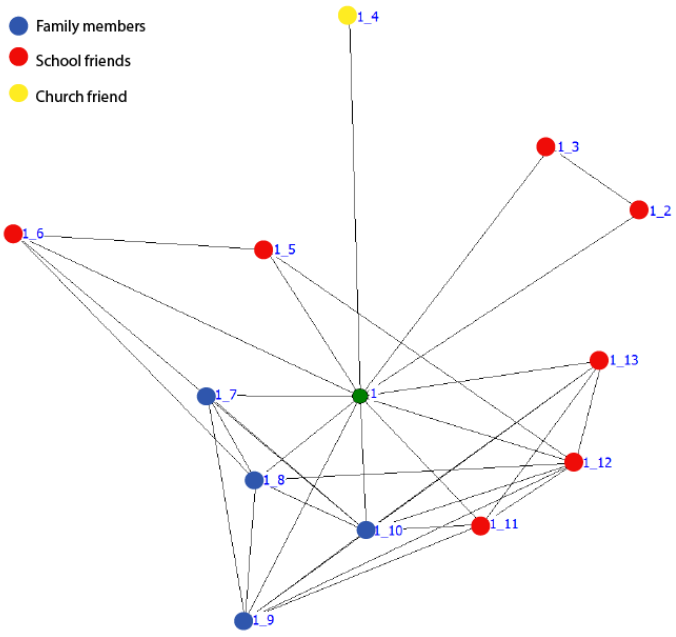

Figure 9. Along with the family members (blue dots) and school friends (red dots), the girl (with the fourth type of connection to the Maya culture and language) included a church member (yellow dot).

As we observe the representations of the personal networks of the students with the fourth type of connection to the Maya language and culture (Figures 8 and 9), we can notice a much smaller extension of the family group, while school friends constitute the most numerous clique. In these families, where the Maya culture is just an element –not a central one– of the family life, the connection to the culture and the language is principally through Maya speaking relatives, usually grandparents, who may or may not live in the city. On special occasions the family meets and conversations about the Maya speaking relatives' past emerge. The younger generation are just receivers of the stories, they don't participate in co-creating of the Maya world. They don't speak nor understand the language, although they know some words and phrases which are commonly known and used by the inhabitants of Yucatan, since they have long passed to form part of Yucatec Spanish. Outside of the family, some have Maya speaking friends and acquaintances who also provide a connection to the Maya culture and language.

On the part of the three girls, there is respect for and interest in the regional culture, where the Maya culture is an important element. So, one more form to connect is when these young people take part in folkloric dances, wear regional (traditional) clothes on special occasions; they are also familiar with some Maya legends.

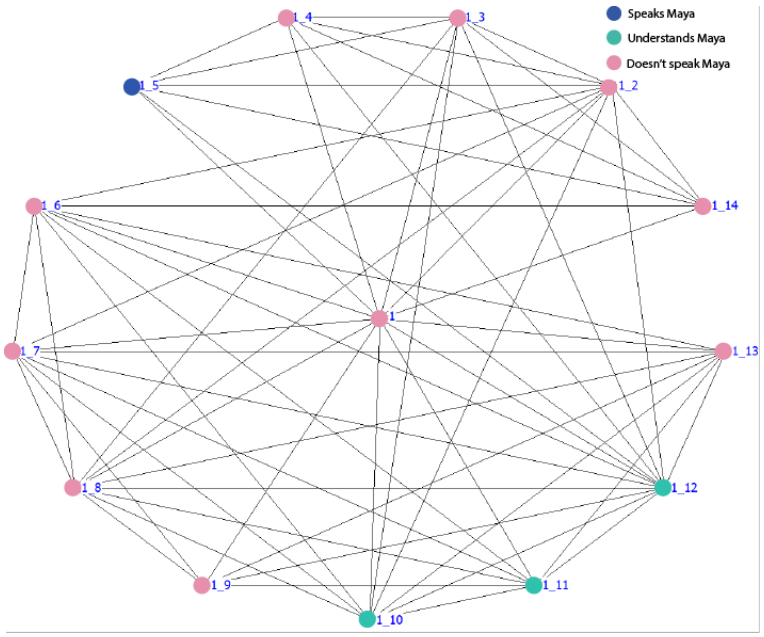

Figure 10. In this girl's personal network only one person (her grandmother) speaks Yucatec Maya (blue dot). One school friend understands Yucatec Maya. Pink dots are for those who don't speak nor understand Yucatec Maya. The girl didn't provide information for the individuals represented with white dots.

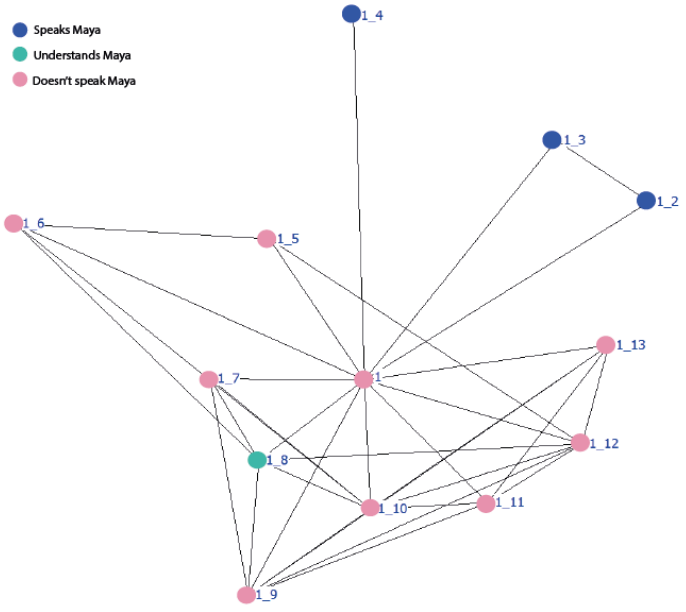

Figure 11. A church member and two school friends speak Maya (blue dots), as well as there is a relative who understands it (green dot). Pink dots are for the individuals who neither speak nor understand Yucatec Maya.

As we ponder on the types of connection to the Maya language and culture, we observe the passage from cultural conversations as a mode to create the Maya reality both in the urban and in the rural environment where all generations actively take part (case of the students' families Types I and II), to conversations about the culture as one of the topics of family communication, where the Maya world is recognized as part of the environment, and usually of the family's past prior to the migration to Merida (students' families Types III and IV).

5. Reflections in the language during the workshop

The workshop sessions generated *an intensive process of sharing* –experiences, knowledge, stories, and reflections–, leading to a bustling flow of recollections and ideas, that came afloat as the sessions advanced. The novelty of the psychic space created was in the recognition of the Maya origin as a shared trait, part of the life experience, and also an asset.

There were also two sessions that we might call "special". One of them was attended by a student from a different grade who had already been investigating about the Maya culture in his family and his native town near Merida. He shared stories of his Maya speaking relatives and his hometown. His gift of storytelling and the passion for the Maya culture were truly contagious and became objects of reflections.

During the second special session one of the participants, the only girl who had the full domain of Yucatec Maya (which is her mother tongue), shared the photographs that best represented her lifeways and talked in Yucatec Maya about the presence of the Maya culture and language in her life. After her presentation, one of the students who understands the language, interpreted and commented on the girl's presentation. Listening to Yucatec Maya and the experiences shared triggered further sharing of experiences and reflections.

Overall, the reflections in the language generated in the workshop had to do with the cultural knowledge, differences in the rural and urban lifeways, the situation of the Maya culture and language in the rural and urban environment, the reasons why the Yucatec Maya language tends to be conserved in the villages, but is being displaced by Spanish in the city. These reflections, in their turn, triggered reflections of a personal –second-order– character, where the students reconsidered, based on the personal experience, their own connection to the Maya culture and language. We present these reflections according to the type of connection explained above.

First type of connection: Living the culture. For this Maya speaking girl the workshop, where she could share her stories (which happened to her and her family members, some of them about Maya practices, beliefs, everyday life, among others), speak her language, and be praised for that, brought a feeling of hetero recognition, which she describes as "very satisfactory" (see Figure 12 below). As she felt recognized by her peers, she assumed the role of a transmitter of her culture, a person who can teach her peers, because, as her peers reflected during the workshop, being bilingual gives her an asset to know twice as much as her monolingual friends. While she had already –thanks to her family– assumed her identity as a true Maya before the workshop, her school had never before served as an interactional space where she would be recognized as such.

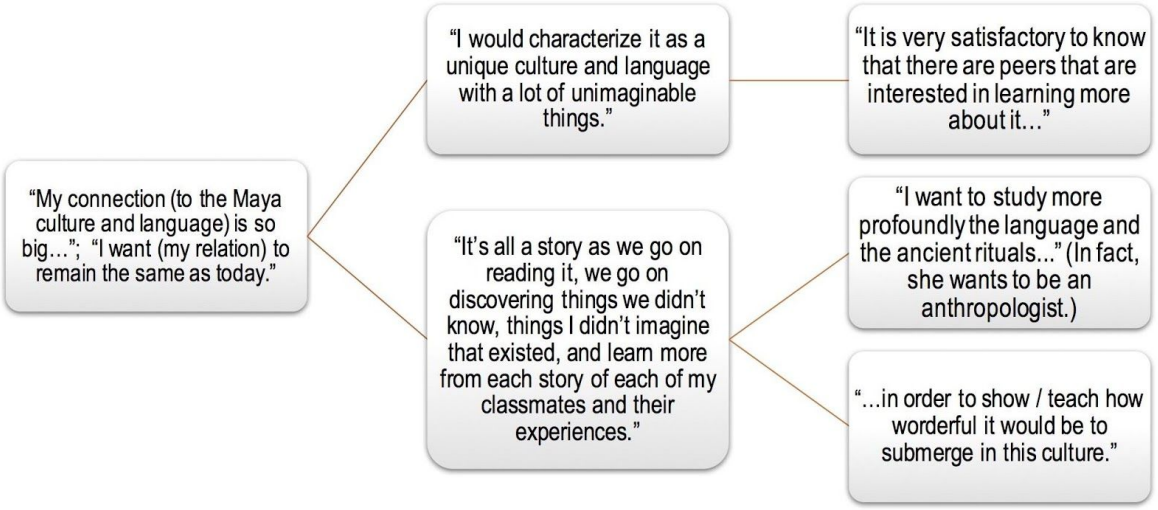

Figure 12. Reflections in the language: first type of connection to the Maya language and culture

Second type of connection: One family-two worlds. For these students with deep Maya roots it was a surprise to discover –after almost two years in the same school– that there were peers with the same roots, similar family traditions and stories, who were equally motivated to share (see Figure 13). They experienced and expressed emotions such as surprise, pride (to be of Maya origin), and happiness, because their peers "paid attention" and recognized them as they were (they didn't have to hide their origin).

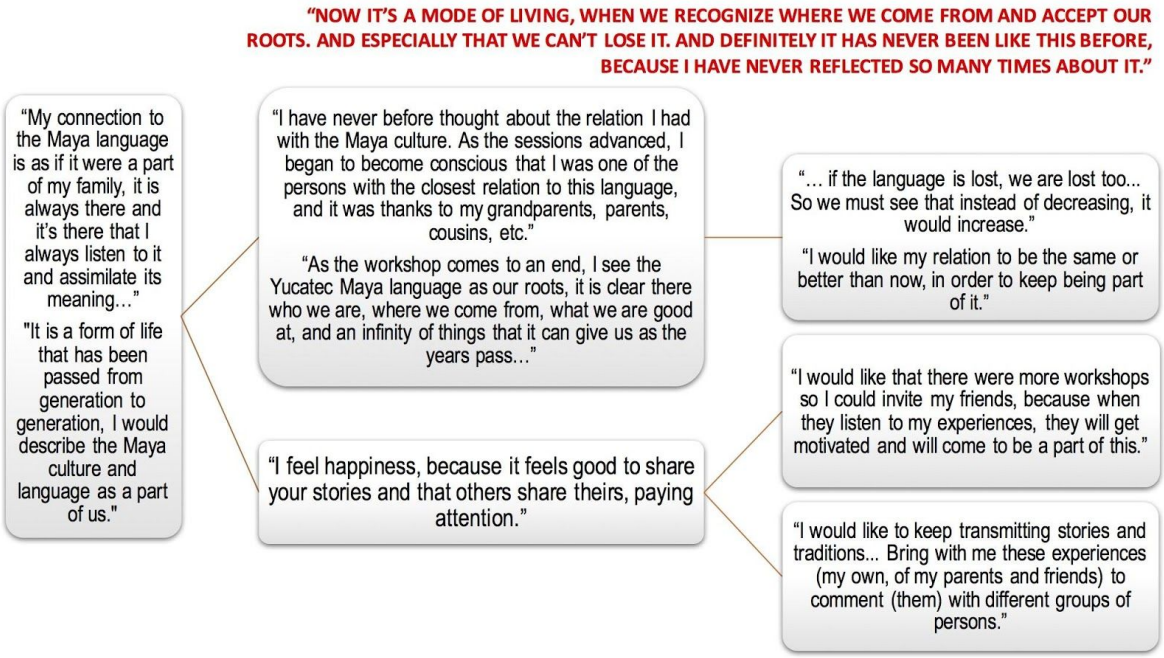

Figure 13. Reflections in the language: second type of connection to the Maya language and culture

The fact that their own peers were interested in the stories and experiences triggered in them the eagerness to strengthen their relation with the culture, and even to reactivate the language. They

also became eager to motivate other peers to join the new interactional space created, since, as they reflected, there had never been a space or an opportunity like this in their high school or any other place they share with their peers before.

Third type of connection: One pivotal bond. The most important thing for this young man, who has one significant connection to the Maya culture and language –his dad–, is that through conversations with his peers, whom he admired for understanding and speaking Yucatec Maya, and for maintaining a more active and natural/true connection to their Maya roots, he was able to better understand and fully recognize his dad as a legitimate other. He made recordings of his dad speaking and singing in Maya, and he also invited us to his house to meet his dad and to converse with him. His experience during the workshop was that of feeling a better person, who has gained consciousness of the value of his dad's struggle to maintain his language and practices in the urban environment. He felt proud of his dad, his granddad, his aunt, and his roots. He took it as a personal task not only to transmit what he had learnt, but also to invite other peers to participate in the new interactional space, which he wished "never ended" (see Figure 14).

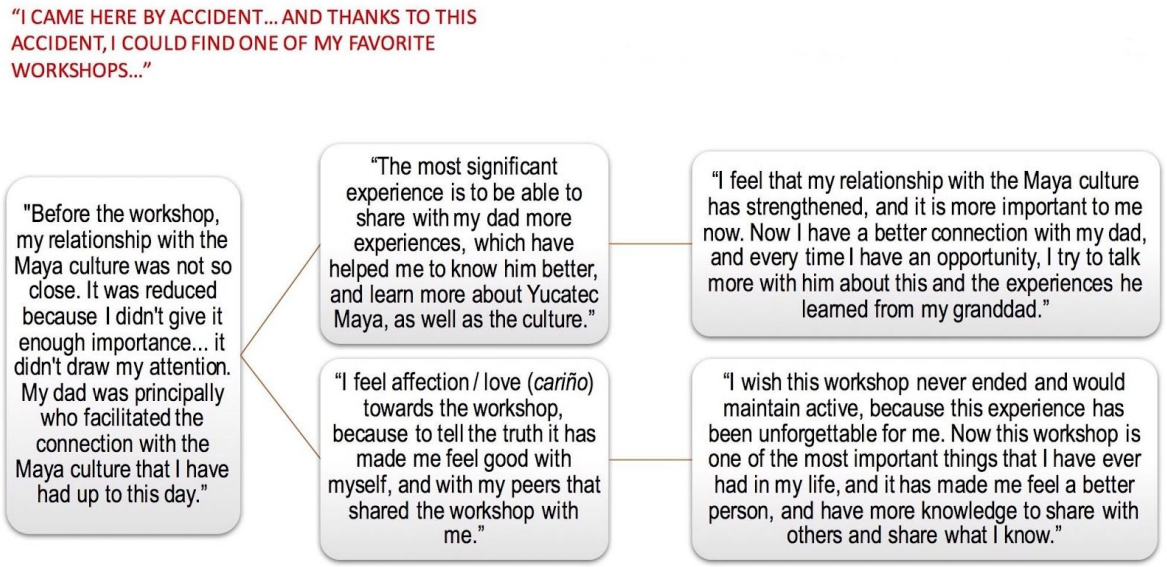

Figure 14. Reflections in the language: third type of connection to the Maya language and culture

Fourth type of connection: Maya culture as a family element. When the connection is looser, when the Maya culture is not a mode of living, people might as well ignore it and be indifferent. Respect, interest, and empathy experienced by the students with a loose connection to the Maya culture and language, is very important to assure this culture's sustainability (they are an important clue to the structural coupling).

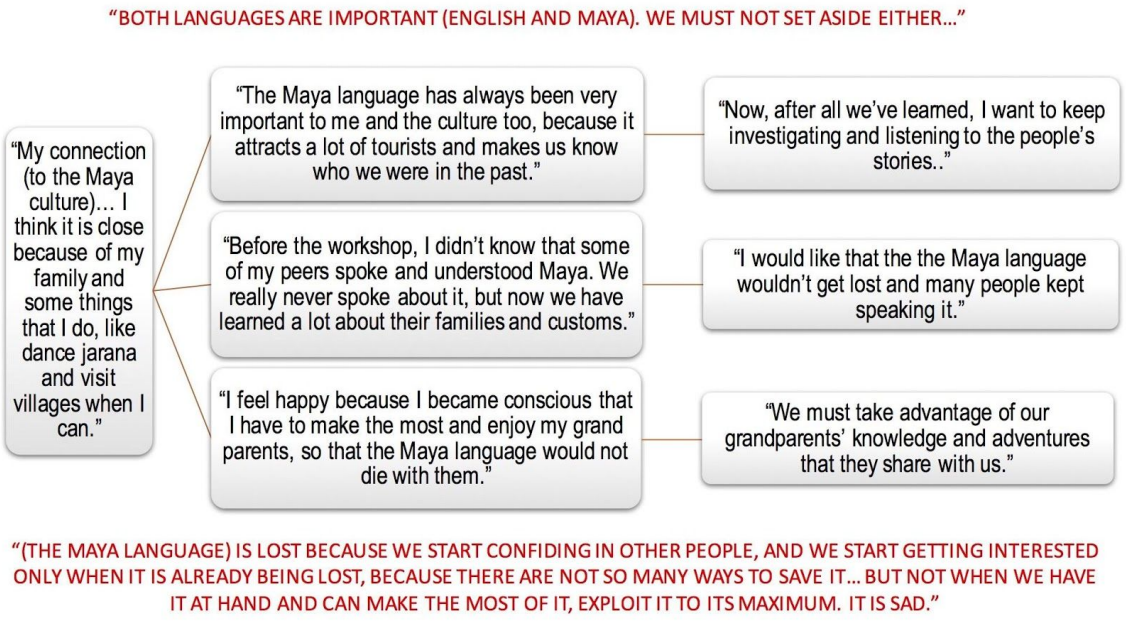

Figure 15. Reflections in the language: fourth type of connection to the Maya language and culture

Even though the girl, some of whose reflections we present above (see Figure 15), sees the Maya culture and language as her family's past, a part of the history, and a tourist attraction, through the workshop conversations she also discovered that they are a pivotal part of some of her friends' lifeways, they are a significant part of who they are, and she was happy to recognize them as bearers of this culture. The possibility to share an interactional space where both students with close and loose connections to the Maya culture and language can converse, where the mutual respect is shown, and the equality of cultures and languages is recognized, is a condition that could lead to the creation of a social sphere, in which different cultural groups could co-exist in mutual recognition as legitimate others "under any circumstance" (Maturana & Nisis, 2014, p. 45).

Finally, as the researchers, we have also reflected on the interactional space we participated in. We would like to highlight that:

- We were conscious that the participants were curious first and content as the sessions advanced that we –three researchers who were not part of the Maya group– would have a commitment to their culture and language, and more centrally with them as human beings in the environment usually indifferent to and stigmatizing of the Maya people.
- It was surprising to discover that the students who had already spent almost two years in the same college and had studied Maya Culture as a school subject, never knew if their friends were related to this culture, spoke or understood the language. This was not a topic of conversation or explicit interest among them, even though...
- The students have an *amazing* stock of experience and knowledge related to the Maya culture and language, as well as are bearers of a unique life philosophy.
- It was highly emotional to listen to the students' stories, because they were narrated in a special way; their verbal accounts were very spontaneous and emotional in themselves, reflecting the internal / interiorized –although hidden– connection to the Maya culture and language.

- As university teachers we became more conscious about our own forms to communicate with the students, which commonly lack this level of emotionality.
- We genuinely enjoyed the students' initiative and spontaneity in generating the workshop contents through conversations with their relatives and the conversations that emerged during the workshop. Therefore, we could actually witness the creation of an interactional network among peers (emotinoning + languaging) that made them feel free to share; they were the experts in charge of the sessions.
- It is really astonishing how this knowledge and the ability to transmit it are being hindered/frustrated in the urban environment in the case of the younger generation.

6. Conclusions: towards sociocybernetics of cultural and linguistic sustainability in the context of sociocultural inequality

The young men and women are co-creators of the world, as well as us, the researchers, who held conversations with them. Together, as human beings, we are involved in a moment-to-moment creation of the world we live in; if we want a better world, a truly *social* world (in Maturana's terms), we are to engage ourselves in and sustain recurrent conversational networks based on love, as their fundamental condition. These conversations must also be reflexive; in our interactions, we can share our reflections on our world (which is always created with others), on us as its creators, and on the conversations themselves that are the medium through which human realities emerge. And this is, in fact, the primary aspect of education, seen as a process that allows a person to become what she is: the teachers –and any other type of young people's interlocutors, including their peers– are to co-create an interactional sphere where the students would be able to affirm themselves as "co-creators together with others of a social space desirable for human coexistence" (Maturana & Nisis, 2014, p. 59).

This is the process through which the students can gain self-respect and self-acceptance, which are, in their turn, the key to their liberty and responsibility (Maturana & Nisis, 2014, p. 63); the liberty to choose what each of them desires to be and do in her life; and the responsibility as co-creators of other/better worlds.

We sustain that both, individuals of Maya descent and those who are not, are to get involved in the creation of this new interactional sphere. Structural coupling is to be assured between different groups and concreate individuals –of all generations and very importantly peers (especially in the case of young people for whom their age group is an important source of emotional support). This only can occur through conversational interactions, languaging, and emotioning. This approach goes along with Walsh's (2009) idea of critical interculturality which requires structural changes at all levels of a social system, including the individual, on the part of all sociocultural groups. In Maturana's thinking this implies changing the individuals' behavior, which only can be done if the emotional domain changes, leading to different conversations, where reflections in the language occur.

This is also true as to the possibility of the Maya culture and language becoming an intrinsic part of the young men and women's identity. According to Maturana & Nisis (2014), what kind of person one becomes as she grows up,

> emerges as a systemic identity conserved in a dynamics of interactions in the human domain in which he or she lives, may that be at home, at school, the street or the hearth of the world

> in general. In this systemic dynamics, the child that is growing up contributes to preserve the world that emerges in her interactions with other human beings in the same way the adults contribute to conserve it, that is, as they live it. But how we live and what mode of living we perform, depends on our emotionality, not on our reason (pp. 53-54; free translation)[16].

Hence, the authors stress once again the importance of emotionality in the configuration of the identity and the mode of living of a human being; therefore, they state that in all interactional/psychic spaces the child –and any person of any age in general– must be provided with an environment –which is none other than recurrent networks of conversations we are engaged in– that would allow her to become a person she is, and not just a consumer of information about the world that is external to her. And this is only possible if interactional spaces are conformed as social domains, that is, domains of love, not of aggression or indifference. In the case of the Maya culture and language, in addition to information (which they get in their Maya Culture class at school), new psychic –*truly social*– spaces have to emerge –at home, at school, in the media, in the street– where the recognition of the origin of these young people and their Maya speaking relatives is full and unconditional –"under any circumstance" (Maturana & Nisis, 2014, p. 45), so that the self-acceptance is regained and the desire to reactivate the language or learn it form anew could arise.

References

García, R. (2006). *Sistemas complejos. Conceptos, método y fundamentación epistemológica de la investigación interdisciplinaria*. Barcelona: Gedisa.

Instituto Nacional de Estadística y Geografía. (2010). Censo de Población y Vivienda 2010. Retrieved from: http://www3.inegi.org.mx/sistemas/scitel/consultas/index

Iturriaga, E. (2016). *Las élites de la ciudad blanca. Discursos racistas sobre la otredad*. México: UNAM.

Krotz, E. (1997). Cambios culturales y procesos de re-enculturación. In: Krotz, E. (coord.), *Cambio social y resocialización en Yucatán* (pp. 17-38). Mérida, México: Ediciones de la Universidad Autónoma de Yucatán.

Krotz, E. (2004). Diálogos interculturales en la Península de Yucatán: perspectivas para las relaciones entre la sociedad maya y la no maya. *Temas Antropológicos*, 26(1-2), 33-53.

Lankiewicz, H. (2014). From the Concept of Languaging to L2 Pedagogy. In: Lankiewicz, H., &Wąsikiewicz-Firlej, E. (eds.), *Languaging Experiencies: Learning and Teaching Revisited* (pp. 1-32). Newcastle upon Tyne: Cambridge Scholars Publishing.

Lizama, J. (2012). *Del pueblo a la urbe. El perfil maya de la blanca Mérida*. México: CIESAS.

[16] "[el tipo de ser humano que llega a ser el niño al crecer,] surge como una identidad sistémica conservada en una dinámica de interacciones en el dominio humano en el que él o ella vive, sea esto en casa, en la escuela, la calle o el hogar del mundo en general. En esta dinámica sistémica, el niño que crece contribuye a conservar al mundo que surge en sus interacciones con otros seres humanos de la misma manera en que los adultos contribuyen a conservarla, es decir, al vivirla. Pero cómo vivimos o qué modo de vida realizamos, depende de nuestra emocionalidad, no de nuestra razón" (Maturana & Nisis, 2014, pp. 53-54).

Lizama, J., & Bracamonte, P. (2014). *Decir que somos quien somos. Compendio de resultados de encuestas a población maya de la Península de Yucatán (2004-2012)*. México: Raíz de Sol.

Maturana, H. (1989). Lenguaje y realidad: El origen de lo humano. *Archivos de Biología y Medicina Experimentales*, 22, 77-81.

Maturana, H. (1990). *Emociones y lenguaje en Educación y Política*. Santiago: J.C. Sáez Editor S.A.

Maturana, H. (2014a). *El sentido de lo humano.* Santiago: J.C. Sáez Editor S.A.

Maturana, H. (2014b). Biología del fenómeno social. In: Maturana, H. (in colaboration with S. Nisis), *Transformación en la convivencia* (pp. 21-37). Santiago: J.C. Sáez Editor S.A.

Maturana, H. & Nisis, S. (2014). Bases biológicas del amor como fundamento de la formación humana en la educación. In: Maturana, H. (in colaboration with S. Nisis), *Transformación en la convivencia* (pp. 39-73). Santiago: J.C. Sáez Editor S.A.

Maturana, H., & Pökrsen, B. (2004). *Del Ser al Hacer. Los orígenes de la biología del conocer*. Santiago: J.C. Sáez Editor S.A.

Sánchez Carrión, J. Ma. (1985). La nueva sociolingüística y la ecología de las lenguas. In: *Aingeru Irigaray-ri omenaldia* (pp. 327-345). Donostia-San Sebastián: Eusko Ikaskuntza.

Scott, B. (2018). Sociocybernetic understandings of consciousness. *Journal of Sociocybernetics,* 15(1). Retrieved from: https://papiro.unizar.es/ojs/index.php/rc51-jos/issue/view/182

Sidorova, K., Quiroz Carranza, R. & A. K. Rivero Pérez (2013). Complex systems approach and critical thinking in the construction of the research project about the youth in a "marginalizad" community in Merida, Yucatan, Mexico. *Journal of Sociocybernetics*, 11, 25-45.

Walsh K. (2009). Hacia una comprensión de la interculturalidad. *Tukari*, 11, 6-7. Retrieved from: http://www.tukari.udg.mx/sites/default/files/11.%20Interculturalidad%20y%20pueblos%20ind%C3%ADgenas.pdf

