JoLaCE

Journal of Language and Cultural Education, 2024, *12*(3)
ISSN 1339-4584

sciendo

DOI: 10.2478/jolace-2024-0012

Towards Cognitive Cultural Didactics in foreign language education

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Abstract

Despite significant advances in the conception of cultural teaching and learning in recent decades, some unresolved problems remain. In Intercultural Learning, the cultures between which learners mediate still appear as bounded, nation-type cultures. In Transcultural Learning, it is unclear how learners could acquire knowledge of an unstable, dynamic, and hybrid object. This article suggests Cognitive Cultural Didactics, which relies on the concept of cognitive scripts, i.e., generic mental representations of everyday activities. Cognitive Cultural Didactics reconsiders cultural learning as the additive acquisition of cognitive scripts that govern everyday interactions in geographically more remote locations. By doing so, the cognitive paradigm can resolve some of the current intercultural and transcultural learning limitations. Moreover, Cognitive Cultural Didactics has essential implications for Anti-Racist Pedagogy. It may serve as an antidote against a racist mindset that puts people into binary categories based on skin colour, place of birth, or parents' place of birth ('Us' vs. 'Them').

In contrast, Cognitive Cultural Didactics highlight that everybody has a complex collection of scripts reflecting their multi-faceted past experiences and observations. As a result, no person, whether born abroad or not, with native parents or not, can usefully be described with binary labels that simplify their actual complexity. A racist mindset can thus empirically be shown to be untenable with study evidence from cognitive research.

Key words: foreign language education, intercultural learning, transcultural learning, cognitive cultural didactics, anti-racist pedagogy

1. Paradigms of cultural teaching and learning in foreign-language education

Over the last fifty years, the disciplinary understanding of cultural teaching and learning in foreign-language education has undergone constant and often profound changes, which resulted in a succession of paradigms for cultural teaching and learning (Freitag-Hild, 2018; König, 2022). The 1970s and before considered cultural teaching and learning as *Area Studies*, which involved teaching students a series of 'facts' about the 'target culture' of the foreign language that they were studying (e.g., Britain, U.S. or Australia for English as a foreign language). This teaching included the target culture's geography (e.g., maps, major cities, landmarks), history (e.g., Commonwealth, Civil Rights Movement), customs (e.g., afternoon tea, Thanksgiving), and eminent historical and literary figures (e.g., Shakespeare, Mark Twain). In Area Studies, culture was treated as a stable set of supposedly objective ideas that could be transmitted to learners in the foreign-language classroom.

The 1980s and 1990s saw the rise of *Intercultural Learning*, a paradigm strongly informed by Byram's (1997) model of intercultural communicative competence. Byram's model first challenged the notion that culture was a stable object to be 'taught' to students. Instead, learners should acquire skills to communicate and interact with people from different cultural backgrounds. Byram (1997, p. 49 ff.) suggested that the intercultural learner ought to have, among others, an open attitude towards other cultures, knowledge about 'their' and the 'other' culture, the ability to acquire new knowledge about the other culture, and the capacity to interpret documents from the other culture. By doing so, learners can reconstruct the other's way of life and make sense of the world, thus decentre from their cultural perspective.

Beginning in the 2000s, cultural learning was again reconsidered as *Transcultural Learning*. Here, cultures, mainly present-day Western cultures, are described as complex and dynamic, characterised by polyphony hybridity, and overlaps with other cultures. Thus, learners in foreign-language education are asked to explore this dynamic, hybrid space of culture through various (cultural) texts, such as newspaper articles, websites, or stories, and other (cultural) media, such as pictures, YouTube clips, or films. Presumably, it is through this examination of authentic cultural texts and media that the true polyphony, hybridity, and ever-changing dynamicity of the target culture can be understood (Braselmann, 2023, pp. 172–177).

After sketching out these major frameworks, I found that each paradigm in cultural learning appears to have specific limitations and unresolved problems. In Area Studies, the teaching of culture as supposed 'facts' that constitute the 'target culture' can never do justice to the variety of cultures that natively speak the language (e.g., English in South Africa, Trinidad, India) or to the variety of cultures within any of those countries (e.g., working class, middle class, upper class in the UK). Also, Area Studies does not equip students with the skills to deal with cultural encounters outside the 'taught' culture and its cultural 'facts'. Intercultural Learning suggests a cultural gap or distance between the learner's and the other culture, which will eventually be bridged by a skilful intercultural learner (Freitag-Hild, 2018, p. 165). Hence, the cultures in which students mediate are considered closed-off, bounded spaces. This conception, of course, is strongly associated with the idea of a monocultural nation-state (e.g., a German culture for Germany, an English culture for England, etc.), with the intercultural learner acting as a mediator between (*inter*cultural) these nation-type cultures (inter*cultural*). However, most twenty-first-century countries do not appear as bounded, closed-off, monocultural spaces between which an intercultural learner could mediate. Finally, in Transcultural Learning, culture is regarded as a complex, polyphonous, dynamic construct, a 'moving thing of many voices'. In transcultural learning, therefore, it is uncertain how learners can acquire satisfactory knowledge of an object that is ultimately intangible in its multi-layered complexity and, what is more, is undergoing constant shifts and changes. (For space reasons, this review of cultural learning paradigms and their challenges is limited; for more detailed accounts, cf. Freitag-Hild, 2018; König, 2022; Delanoy & Volkmann, 2006, Ch. 2 "Area Studies Reconsidered" & Ch. 3 "Inter- and Transculturality").

2. Towards Cognitive Cultural Didactics

This article suggests Cognitive Cultural Didactics to engage with the above issues. Cognitive Cultural Didactics follow the path opened up by the recent field of Cognitive Literary Studies, which emerged in Literary Studies in the 1990s (Mancing & William, 2022, pp. 325–360). Cognitive Literary Studies is an interdisciplinary field of research that uses empirically established concepts from the Cognitive Sciences (i.e., Cognitive Linguistics, Cognitive Psychology, Neurosciences, etc.) to investigate the reader's understanding and interpretation of literary texts. In doing so, it examines the cognitive processes that are involved in the reader's comprehension of narrative plot(s), their empathy with fictional characters, their literary interpretation(s), and more (for a recent Cognitive Literary Studies handbook, cf. Zunshine, 2015).

Similarly, Cognitive Cultural Didactics applies an interdisciplinary approach to cultural understanding and learning to examine how learners engage with and learn about culture in foreign-language education. As a research field, it draws on empirically grounded concepts from the Cognitive Sciences and uses established cognitive processes to understand the students' cultural learning. An advantage of this approach is that its accounts of cultural learning align with concepts found to be psychologically 'real' in learners, as the Cognitive Sciences corroborate. For this article, the suggested sketch of Cognitive Cultural Didactics uses cognitive script theory, which appears to be a promising starting point for the field.

2.1 Cognitive scripts: standard event sequences in the mind

The notion of cognitive scripts derives from Cognitive Psychology, which was first discussed in the 1970s (Schank & Abelson, 1977; Bower et al., 1979; Abelson, 1981) and is now, after decades of empirical research (Whitney, 2001; He & Fisher, 2020; Albarracin et al., 2021), firmly established. Cognitive scripts were suggested as an answer to an elementary question about human cognition and behaviour: How do people know what to do when infinite options for action are available at any given moment? Or, in other words: "How do people know what behaviour is appropriate for a particular situation? […] What is the nature and form of that knowledge? How is it organised [in mind]?" (Schank & Abelson, 1977, p. 207). The suggested answer is that people rely on cognitive scripts to organise their understanding of and behaviour in routinely observed situations. Cognitive scripts are generic mental representations of activities frequently encountered in everyday interaction (e.g., making small talk, going to a restaurant, a school lesson, a university course, a football game, a job interview, etc.). As a "standard event sequence" (Schank & Abelson, 1977, p. 208), cognitive scripts store the general internal make-up of an activity (e.g., *a* university course) rather than the make-up of a specific activity (e.g., *the* third TEFL introduction of the 2024 summer term), and contain the ordered sequence of events that are essential to an activity (e.g., for a university course: arrival, welcome by lecturer, topic introduction, group tasks, class discussion, wrap-up, reading assignment, leaving).

Research in Cognitive Psychology maintains that individuals acquire cognitive scripts through their experience, i.e., repeatedly acting in everyday activities, and external observation, i.e., observing others participate in them (Taylor et al., 2023, p. 2029). This implicit, bottom-up experience leads to the establishment of cognitive scripts, which are later applied top-down to make sense of and behave appropriately in new situations that adhere to the

same routine (e.g., a university course in the next term or at another department). Presumably, people rely on cognitive scripts to reduce the cognitive effort required to carry out everyday activities: If individuals know which behaviour they can expect from others and which behaviour they are expected to perform, the cognitive effort of 'navigating the world', as it were, is lowered. Hence, scripted "knowledge about a situation allows us to do less processing and wondering about frequently experienced events" (Schank & Abelson, 1977, p. 208). Since cognitive scripts arise in a bottom-up fashion out of a person's lived experience, there is no inherent limit to the number of scripts a person can acquire. As a result, people presumably hold many cognitive scripts about their everyday routines, which they store and apply to navigate future situations whenever necessary.

There is ample evidence from empirical research in Cognitive Psychology that attests to the psychological reality of cognitive scripts, which was conducted from the 1970s onwards (for empirical research overviews, cf. Whitney, 2001; He & Fisher, 2020; Albarracin et al., 2021). However, early classical studies have convincingly shown that cognitive scripts are a 'real' part of people's cognition. The three most informative classical studies will be summarised in the following to give further examples of cognitive scripts and provide the necessary empirical evidence.

Bower et al. (1979) conducted an early series of studies to investigate whether people's cognition relies on cognitive scripts. In a first study ("Script Generation"; Bower et al., 1979, pp. 180–184), they asked 161 students to write down scripts for everyday activities that should each contain 20 events, e.g., grocery shopping, attending a lecture, visiting the doctor, etc. The participants wrote their scripts individually. The researchers found very few unique events that only one person mentioned, and most students had mentioned most of everybody else's script events (Bower et al., 1979, p. 181). The study thus indicates that people hold cognitive scripts for a wide range of activities, which they can also make explicit, and that their own scripts overlap with other people's scripts to a large extent. As an illustration, consider the script for 'going to the restaurant' in Table 1. This cognitive script applies only to the U.S. in the 1970s, while it is easy to imagine what a corresponding script would look like in a present-day context.

Table 1: The Going to the Restaurant Script (Bower et al., 1979, p. 182)

▪ Open door ▪ Enter ▪ Give reservation name ▪ Wait to be seated ▪ Go to table ▪ Be seated ▪ Order drinks ▪ Put napkin on lap ▪ Look at menu ▪ Discuss menu ▪ Order meal ▪ Talk ▪ Drink water	↓ ▪ Eat salad or soup ▪ Meal arrives ▪ Eat food ▪ Finish meal ▪ Order desert ▪ Eat dessert ▪ Ask for bill ▪ Bill arrives ▪ Pay bill ▪ Leave tip ▪ Get coats ▪ Leave

Note: The script only contains events mentioned by >25% of the participants.

In another experiment ("Script Recall"; Bower et al., 1979, pp. 188–193), Bower and his colleagues asked 18 students to read a story that contained six random events from an underlying script of 20 events (e.g., going to a birthday party). Afterwards, they asked the students to recall the story as precisely as possible. Although stated script events were recalled more often than unstated script events, students 'recalled' a considerable number of events that they had never read about, which were part of the cognitive script. The researchers thus found "a fairly high intrusion rate of unstated actions from the underlying script" (Bower et al., 1979, p. 193). This result indicates that the participants relied on their available scripts when understanding the stories, which led to the false introduction of unstated script events into the recalled stories.

In a third experiment ("Script Action Reordering"; Bower et al., 1979, pp. 202–206), Bower and colleagues presented 12 students with five ordered and five unordered scripts that each had 12 events (e.g., going to a movie). The students were asked to remember the exact order in which the events were arranged so that they could reconstruct that order precisely. Again, in line with cognitive script theory, the researchers found that "misordered actions [...] drifted back towards their canonical position during reconstruction" (Bower et al., 1979, p. 205). Again,

this finding strongly suggests that the participants had used available cognitive scripts to make sense of the presented scripts, which led to a 'drift' of out-of-line events towards their standard position during recall.

Taken together, these three classical experiments, which were later extended by more recent studies (cf. Whitney, 2001; He & Fisher, 2020; Albarracin et al., 2021), provide robust evidence that scripts are a genuine part of people's cognition, who rely on cognitive scripts to make sense of and to behave in, their everyday lives economically.

2.2 Towards Cognitive Cultural Didactics

Cognitive Cultural Didactics, which relies on cognitive script theory, reconsiders cultural learning as the additive acquisition of cognitive scripts that govern everyday interactions in geographically more remote locations. In this way, cultural learners in foreign-language classrooms already hold a large number of cognitive scripts that belong to their immediate 'home space', i.e., their family, relatives, and friends, and cognitive scripts that pertain to their less immediate 'out-of-home space', i.e., school, workplace, public transport, shopping, hobbies, etc. Since there is no limit to a person's cognitive scripts, cultural learners can obtain additional cognitive scripts for their 'beyond-home space' in the foreign-language classroom, which are present in and characterise geographically more remote locations.

To illustrate this paradigm of cultural learning, some examples of cognitive scripts that govern interactions in these spaces are the following: For their 'home space', students hold scripts for family meals, playing board games, hanging out with friends, etc.; for their 'out-of-home space', students have scripts for lessons at school, riding on the bus, dance practice, visiting relatives, etc.; finally, for their 'beyond-home space', students can potentially acquire and hold scripts for ordering at the pub, diner, or dhaba, participating in Bonfire Night, Halloween, or Diwali, attending a football, baseball, or cricket game, taking the London Tube, New York subway, or Mumbai local train, etc.

Cognitive Cultural Didactics, which draws on cognitive script theory, thus considers cultural learning as the additional acquisition of cognitive scripts that characterise routine activities in geographically more distant places. The paradigm relies on the same cognitive operation that guides a person's cultural learning about their daily lives and does not have to postulate any supplementary mechanism for learning. Also, its cognitive process is widely corroborated by empirical evidence from the Cognitive Sciences, which attests to the psychological reality of cognitive scripts.[1]

Apart from these benefits, Cognitive Cultural Didactics can address some challenges in earlier intercultural teaching and learning paradigms. As for Area Studies, whose 'facts' about the 'target culture' fail to represent the wealth of cultures that speak the foreign language, the cognitive paradigm is open to the acquisition of any scripted routine from any geographical location and is thus not culturally 'restricted' as Area Studies is. As for intercultural learning, which implies the notion of bounded, nation-type cultures, the cognitive paradigm does not refer to nations, states, or countries but instead relates to behaviour in routinely observed situations which may occur in any political space. Finally, as for Transcultural Learning, the question of how learners could acquire knowledge of a complex, hybrid, and ever-changing culture is at least partially addressed. Here, the hybrid culture can be understood as the coming together of many individuals who hold cognitive scripts that primarily, but not fully overlap with each other's scripts, thus producing what appears to the outside observer to be a multi-layered, polyphonous culture. In a cognitive paradigm, learners, through acquiring a growing number of scripts that characterise a remote, complex cultural space, can successfully navigate ever more, although never all, routine activities within this multi-layered, hybrid culture. The fact that culture is dynamic and ever-changeable is an issue that also affects permanent members of society, who do not typically keep up with all newly arising scripts, which will, therefore, be a challenge for cultural learning in the foreign-language classroom. (The article's author has never been on TikTok and has no script, although roughly one in four people in Germany are using the app; Tagesschau, 2023).

3. Implications for an Anti-Racist Pedagogy in foreign language education

Finally, it will be discussed how a cognitive paradigm for cultural learning that uses cognitive scripts is a highly valuable tool, both conceptually and in terms of teaching, for an Anti-Racist Pedagogy. At the heart of an Anti-Racist Pedagogy is the recognition that racism, or a racist mindset, simplifies the complexity of people (including oneself) by sorting them into artificially homogeneous categories that rely on, for the most part, skin colour, place of birth, or parents' place of birth ('Us' vs. 'Them'). Value judgements are then attributed to these artificial categories, usually positive (for one's category) and negative (for the other category), which, through their constructed homogeneity,

[1] There is range of classroom activities to acquire beyond-home scripts in an implicit, bottom-up fashion, such as project-based learning, multimedia resources, guest speakers, or – in the near future – observation-based learning in virtual reality. However, these methods and learning activities will have to be detailed in a separate article.

apply to all category members. (This construction is most visible in statements of the type "all X are Y" or "after all, we are in X [and behave Y]"). Thus, a racist mindset relies on a "mostly degrading and discriminatory binary distinction between a socially constructed natio-ethno-cultural 'Us' and a 'Not-Us', which is maintained and legitimised by a complex [...] system of social practices" (Scharathow et al., 2011, p. 11; translated). What is more, this binary distinction is typically in the interest of the dominant social group ('Us'), which uses this pattern of thought and argument to maintain its privileged status and power over the other social groups ('Them') (Fereidooni & El, 2017, p. 477).

A foreign-language classroom of anti-racist teaching, which, in line with Cognitive Cultural Didactics, educates students about cognitive scripts, serves as an educational antidote to a racist attitude that 'separates, simplifies, and slanders'. Instead, students realise that all individuals, their classmates, and anybody are holders of an individual collection of cognitive scripts that have emerged and will arise from their lived experience and observation of others. This will make learners recognise that the scripts they are familiar with have been acquired primarily in their 'home space', i.e., their family, relatives, and friends, and 'out-of-home space', i.e., school, grocery shopping, football practice, place of worship, etc. Notably, the same is valid for anybody, whether born in the same country or abroad, has native parents or others, has lighter or darker skin, etc. As a result, learners realise that there is nothing special, unique, or privileged about anybody's script routines. They are cognitive tools that enable people to successfully navigate future activities based on the experience and observation of past situations. Cognitive scripts cannot be judged in terms of value since all scripts are valid solutions to appropriately behaving in a given situation, so the cognitive effort of oneself and others is minimised. Learners with a lived experience outside of a given country dispose of cognitive scripts that go beyond activities typically found in that country, which these learners can apply flexibly to their future lives.

In a classroom of anti-racist teaching, learners will understand that everybody holds a complex collection of scripts that reflects their multi-faceted past experiences. As a result, any person, whether born abroad or not, with native parents or not, cannot, owing to this multi-layered complexity, usefully be described with binary labels that simplify their true sophistication (which includes the describer him-/herself). Also, knowing whether a person has a particular cognitive script or knowledge routine based on appearance is impossible. After all, their past experiences and observations are unknown. Thus, categorising and homogenising is a construct falsified by cognitive research, which can explain the trustworthy source and variability of people's cognition. In other words, the artificial distinction between a natio-cultural 'Us' and 'Them', which is the hallmark of a racist mindset, can be shown to be empirically false with evidence from the Cognitive Sciences (Whitney, 2001; He & Fisher, 2020; Albarracin et al., 2021).

Finally, because scripted knowledge is continually growing through interaction with and observation of others, and because there is no inherent limit to the scripts a person can acquire, learners realise that their own beliefs about or biases towards 'other' people (say, not born in their country, without native parents) can easily be transformed. This is done by fostering more and better relations with anyone (at first) perceived as 'other'. In other words, by spending time and paying genuine attention to others, learners will familiarise themselves with their behavioural and thought routines, much like they have acquired earlier cognitive scripts from their parents and peers. After some time, initially, opaque routines will become known, familiar, and intelligible to them. Moreover, since interaction and observation are inevitably a two-way street, the other learner will experience the same, thus leading to a mutual modification of initially wrong beliefs or biases about each other. Of course, teachers in a multicultural classroom can foster these beneficial interactions by pairing students appropriately in their classroom activities, school functions, sports events, field trips, etc.[2] (Incidentally, the same is true for parents, and the question is who they encourage or discourage their children to play or 'hang out' with).

To conclude, the ideas in the above paragraphs could be replaced with much more straightforward, banal slogans, such as "Everyone is an individual and has to be treated as such" and "A genuine relationship makes people understand each other". Here, it may be the case that cognitive research about people and folk wisdom about people (which also relies on repeated observation) have been probing the same social fabric and have thus arrived at similar conclusions. These separate knowledge sources are converging, a promising sign for Cognitive Cultural Didactics, which was sketched out in this contribution, and for the positive impact that this cognitive paradigm may bring to an Anti-Racist Pedagogy in foreign-language education.

[2] As an example from 2024-28, consider a school vegetable garden, which is jointly taken care of by students from the „Vorbereitungsklasse", with students who do not yet speak German, and their German-speaking parallel class at *Jengerschule Ehrenkirchen* (Baden-Württemberg Stiftung, 2024).

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