Athens Journal of Philology

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Front Pages

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The *Athens Journal of Philology* (AJP) is an Open Access quarterly double-blind peer reviewed journal and considers papers from all areas of sports and related sciences. Many of the papers in this journal have been presented at the various conferences sponsored by the Languages & Linguistics Unit and the Literature Unit of the Athens Institute for Education and Research (ATINER). All papers are subject to ATINER's Publication Ethical Policy and Statement.

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The current issue is the second of the thirteenth volume of the *Athens Journal of Philology* (AJP), published by the Languages & Linguistics Unit and the Literature Unit of Athens Institute.

Gregory T. Papanikos
President
Athens Institute

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- **Dr. Stamos Metzidakis**, Head, Literature Research Unit, Athens Institute & Emeritus Professor of French and Comparative Literature, Washington University in Saint Louis, USA.

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Kerdos in *Homer*: Gain, Profit, Advantage? A Status Report

*By Sandrine Coin-Longeray**

This article presents the current state of knowledge on the theme of *kerdos* in the Homeric corpus and examines the specific relationship between this word family and the character of Odysseus.

Introduction

In 2014, we published *Poésie de la richesse et de la pauvreté. Études du vocabulaire de la richesse et de la pauvreté dans la poésie grecque antique, d'Homère à Aristophane: ἄφενος, ὄλβος, πλοῦτος, πενία, πτωχός*, (Presses de Saint-Étienne), an extensively revised edition of my thesis. This publication was in response to an ongoing interest in economic issues in the field of ancient worlds, and thus to the need for a comprehensive study. In the poetry of the 5th and 4th centuries BC, the lexicon of wealth is essentially organized around a contrast between three abstract terms: *aphenos* (prestige wealth used mainly for the glorifying presentation of a character; a Homeric term). The two other abstract names for wealth, *olbos* and *ploutos*, often function in opposition, in very different ways: the first term refers to wealth blessed by the gods, ancient and generally positively connoted, while *loutos,* originally the specific term for wealth, a neutral word which, in contrast to *olbos*, acquired the values of recent, corrupting, even deadly wealth, this evolution being linked to the socio-economic developments of the classical period, when the separation of nobility and wealth took place.

In line with this work, we have also published regularly on the theme of wealth in Ancient World, notably, in English, *Wealth in Hellenistic Poetry, bettween Continuity and Recomposition*, available on *(*https://glocal.soas.ac.uk/comela2022-proceedings)

Interest in the problem of wealth remains, which is why we began the continuation of this work on the question by examining terms that do not strictly belong to the lexical field of wealth, but which can be associated with it. My objective is to study, in particular, the word-family of τὸ κέρδος (*to kerdos*) "gain, profit, advantage".

Kerdos in Tragedy

This word-family[1] is found in association with wealth in the Greek ancient poetry, notably in Aeschylus's tragedy *Agamemnon*: this tragedy depicts the return of

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[1]The following words are attested in the Homeric corpus for this word family: a neuter substantive *kerdos*, mainly used in the plural (*ta kerdea*), an abstract noun *kerdosynè* and an adjective *kerdaleos*. There is also three compounds: *kerdaleophrôn* (with *kerdos* in mind?) *nèkerdes* (without *kerdos*)

the king Agamemnon after his victory over the city of Troy. The fear of the gods' wrath hangs over the entire play, following the atrocities committed by the Greek army during the capture of the city of Troy. And at the beginning of the play, when victory has been announced in Argos, but before the king's return, the fear that the Greek army might have shown excess in its triumph is expressed twice: v. 341-342 ἔρως δὲ μή τις πρότερον ἐμπίπτῃ στρατῷ / πορθεῖν ἃ μὴ χρή, κέρδεσιν νικωμένους. "and that no desire will seize the army to ravage what it should not, overcome by the *kerdos*".

This use seems reinforces the theme of "mortal" wealth, symbolized by the purple carpets that Agamemnon treads on, at the request of his wife Clytemnestra, when he enters the palace, as he walked in the blood of Troy[2]. The second occurrence is also interesting, when the herald proclaims that the victory over Troy was worth it v. 573-574 : ἡμῖν δὲ τοῖς λοιποῖσιν Ἀργείων στρατοῦ / νικᾷ τὸ κέρδος, πῆμα δ' οὐκ ἀντιρρέπει "for us who remain of the army of the Argians, *kerdos* is victorious, sorrow does not counterbalance": the echo effect with the first occurrence (victory of gain) makes it clear that exactly the opposite has happened, *ie* the *pèma* ("sorrow", for instance the many Greek deaths), and will happen. Actually, the lure of gain has overcome the army, and driven it to the hubris of an excessive victory, which will sign the king's doom.

If our aim is to have a better understanding of the relationship between gain and bad wealth (is it limited to Greek tragedy? What kind of material profit do these terms refer to exactly?), it is necessary, in our opinion, to go back up to the origin of Ancient Greek litterature, *ie* the epic poetry : we can see that the word-family of *kerdos*, in Homer, almost never has a meaning of material profit or wealth, even though this is its most common meaning in classical poetry: we have here a perfect example, wich is not isolated, of a relatively abrupt change in meaning between Homeric texts and later literature. To understand this phenomenon, it should be remembered that Homeric literature is an oral tradition, whose development stretches back to the 10th century BC, for the earliest elements, to the beginning of the 6th BC: semantic archaisms therefore exist in the same way as phonetic, morphological and syntactic archaisms. However, it is noteworthy that a detailed semantic evolution when the texts of Homeric literature are so varied, and while Homeric texts are perfectly familiar to later authors: we could therefore assume that occurrences in Homer or in later poetry may have not always been correctly interpreted.

State of Research

Two important publications have already well studied the family and its uses in Homer, firstly that of F. Bamberger, "Κέρδος et sa famille (emplois homériques), Contribution aux recherches sur le vocabulaire de la richesse en grec". This study successfully demonstrates the variety, or rather the lack of unity, between the meanings of the different words in the family, but it starts from a very "etymological" perspective, i.e., by trying at all costs to link the meanings of the words to the

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and its opposite *polykerdes* (full of *kerdos*). and, above all, a neuter comparative (*kerdion*), wich is the most accurate term.

[2]Cf. S. Coin-Longeray, "Agamemnon ou la richesse mortelle : étude d'un emploi particulier de πλοῦτος".

etymology of the family, when this is not even certain, which biases the work. In fact, the author assume a *kerd- theme, present in other Indo-European languages, with the meaning of "trade, art, craft", but, assuming that this is indeed the etymology of *kerdos*, this reading prism is clearly not operative for Greek: in Ancient Greek as in Latin, or Sanskrit, the meaning of words can sometimes be very different from their Indo-European origin, and a limitation of this study is to try at all costs to relate to it, according to an obviously dated methodology.

The second publication is H. M. Roisman's "*Kerdion* in the *Iliad*: Profit and Trickiness", which focuses on the neutral comparative *kerdion*, the most attested form of this word-family. This study clearly demonstrates the specificity of the comparative, in its meaning and uses, in relation to the other words in the family, and this is the reason why we won't include the comparative form in our study, and that our interest will focus exclusively on other forms than the comparative. We should also mention the publication by A. Cozzo*, Kerdos. Semantica, ideologie e società nella Grecia antica*, Roma 1988, but we must admit that it is a rather poor work, very generalist, wich provides little new information for the epic period.

Methodology

So, our aim is to examine Homer's neuter noun *to kerdos*, studying it for its own sake, in the belief that it is the semantic starting point for the other derivatives, and leaving aside questions of etymology and coherence between the various words in the family, to concentrate on its stylistic use. From a methodological perspective, we won't be translating any of the words in the family, with the idea that this will provide a more objective analysis, without imposing any pre-established meaning: it is also important to examine all occurrences in our corpus, without selecting, because it is only from the whole that we can truly establish meaning and significance. A preliminary examination suggests that the most salient point, when we examine the uses of the noun in particular, is its privileged relationship with Odysseus, what we might expect, given the well-known art of tricks and lies of the hero, but we find also a clear relationship with those around him.

In the *Iliad*

First, it should be noted that the *Iliad* predates the *Odyssey* by about half a century, and that the latter poem is often constructed as a "mirror" (or even a critical counterpoint) of the former. The occurrences present a certain ambiguity between positive and negative value. The compound *kerdaleophrôn* (with *kerdos* in mind?) is clearly negative, and appears as one of the components of the confrontation between Achilles and Agamemnon[3], as the first violently attacks the leader of the expedition: ὤι μοι, ἀναιδείην ἐπιειμένε, κερδαλεόφρον, πῶς τίς τοι πρόφρων ἔπεσιν πείθηται Ἀχαιῶν, "Truly, man clothed in impudence, *kerdaleophron,* will the Achaeans be

[3]Let us recall that the god Apollo sent the plague upon the Greek camp to avenge his priest Chryses, to whom Agamemnon refused to return his daughter Chryseis, who was his captive.

persuaded by your words?" (I 149-150). From a stylistice perspective, Agamemnon himself reuses the name, this time applying it to Odysseus (who, as we shall see, is an expert in *kerdos*), while the latter remains on the sidelines during a council meeting: καὶ σὺ κακοῖσι δόλοισι κεκασμένε κερδαλεόφρον "and you, excellent at dirty tricks, *kerdaleophron*" (IV 339)[4]. This occurrence not only echoes Achilles' criticism (which Agamemnon undoubtedly still has on his mind), but also establishes, early on in the epic, the presentation of Odysseus as a master of *kerdos*.

In contrast to these two instances (which are the only ones) of the compound, which are clearly negative, the family has a rather positive value elsewhere. There is one occurrence of the superlative form in the abolu, for the hero Sisyphus, when the warrior Glaucos seeks to demonstrate his quality through his ancestors, which is a classic theme in the world of heroes: ἔστι πόλις Ἐφύρη μυχῷ Ἄργεος ἱπποβότοιο, / ἔνθα δὲ Σίσυφος ἔσκεν, ὃ κέρδιστος γένετ᾽ ἀνδρῶν, "There is a city called Ephyre, deep in the land of Argos, where horses are bred. There lived Sisyphus, who was the most (with) *kerdos* of men" (VI 152-153).

It thus seems to refer to a kind of "technical competence", the ability to quickly assess a situation and react just as quickly. We see this when Agamemnon and his brother Menelaus hold a council to discuss how to respond to the crushing defeats suffered by the Greek army at that time, and raise the idea of sending a spy into the Trojan camp, dangerous mission, which will require *kerdos*: χρεὼ βουλῆς ἐμὲ καὶ σέ, διοτρεφὲς ὦ Μενέλαε, / κερδαλέης, ἥ τίς κεν ἐρύσσεται ἠδὲ σαώσει / Ἀργείους καὶ νῆας, "We need advice *kerdaléès*, Menelaus, son of Zeus, who will protect and save the Argives and their ships." (X 42-44). The two brothers then convene an assembly, implying that the *boule* (council, deliberation, decision-making) will be better with more people involved, as Diomedes, who volunteers for the espionage mission but not alone, will say: σύν τε δύ᾽ ἐρχομένω καί τε πρὸ ὃ τοῦ ἐνόησεν/ ὅππως κέρδος ἔῃ· μοῦνος δ᾽ εἴ πέρ τε νοήσῃ / ἀλλά τέ οἱ βράσσων τε νόος, λεπτὴ δέ τε μῆτις. "If two men go together, one thinks for the other about the *kerdos*; the man alone, even if he thinks, has shorter thoughts, meager invention." (X 224-226).

Alongside this rather generic meaning of "better thinking", there are applications for practical and technical skills, as well as for skill in chariot racing. The meaning of the plural *kerdea* in these occurrences is problematic. Thus, during the games organized for Patroclus' funeral, we see the young Antilochus surpass Menelaus: τῷ δ᾽ ἄρ᾽ ἐπ᾽ Ἀντίλοχος Νηλήϊος ἤλασεν ἵππους / κέρδεσιν, οὔ τι τάχει γε, παραφθάμενος Μενέλαον· "Antilochos, descendant of Neleus, spurred his horses on, by *kerdea* rather than speed, overtaking Menelaus." (XXII 514-515). The commonly accepted translation as "cunning" seems questionable, as the young driver is not cheating but simply demonstrating skill, following the advice given by his father Nestor before the start of the race, with the same words, in particular to take care to pass as close as possible to the marker: ὃς δέ κε κέρδεα εἰδῇ ἐλαύνων ἥσσονας ἵππους, / αἰεὶ τέρμ᾽ ὁρόων στρέφει ἐγγύθεν, "But who knows *kerdea*, though driving inferior horses, always looking at the milestone, goes around it closely" (XXIII 322-323). The repetition between the two passages, characteristic of the epic style, clearly indicates

[4]The compound after disappears from the language, and is only found among lexicographers and later authors.

that *kerdos* has the same meaning, and it is not really the idea of a ruse (and even less the idea of profit).

More interestingly, this is the first instance where *kerdos* is associated with the lexicon of knowledge, and we will see that this idea of knowledge is particularly recurrent in the case of Odysseus, and his "associates."

Odysseus

As far as Odysseus is concerned, if we follow the order of the texts, his "knowledge" is already emphasized in the *Iliad*, rather pejoratively at first: we have already seen the occurrence in IV 339, with the compound *kerdaleophrôn* applied to Odysseus by the king Agamemnon, but we can assume a rhetorical exaggeration on the sovereign's part, especially as the compound is previously hurled as an insult at Agamemnon himself, by Achilles, and perhaps just expresses Agamemnon's anger[5]. In the other instance in the poem concerning Odysseus, it is his technical skill that is highlighted, enabling him to compensate for a natural inferiority, just as the charioteer Antilochos compensated for his horses' lack of speed with his skill as a driver. In fact, when the king of Ithaca has to face the gigantic Ajax in battle, during the games organized for Patroclus' funeral, his physical inferiority can be compensated for in this way: ὣς ἔφατ', ὦρτο δ' ἔπειτα μέγας Τελαμώνιος Αἴας, / ἂν δ' Ὀδυσεὺς πολύμητις ἀνίστατο κέρδεα εἰδώς. "So, they said, and the great Ajax son of Telamon stood up, and Odysseus the cunning also stood up, knowing *kerdos*" (*Iliad* XXIII 708-9).

This occurrence is a first indication of the "specialisation" of the hero with the *kerdos*, but the association of the word family and the hero obviously saturates the *Odyssey*. If we take the text in order[6], it begins when Helen recounts to young Telemachus, who has come to see king Menelaus in Sparta, the moment when she met and recognized Odysseus in disguise, who had come to Troy as a spy: · ἐγὼ δέ μιν οἴη ἀνέγνων τοῖον ἐόντα, / καί μιν ἀνειρώτων· ὃ δὲ κερδοσύνηι ἀλέεινεν. "Only I recognized him as he was, and I questioned him, but he evaded my questions with *kerdosynè*." (IV 250-251). This occurrence is particularly interesting because it links the Trojan War and thus the other epic poem (even though the story of Odysseus as a spy is not in the *Iliad*), and at the same time heralds Odysseus' return to Ithaca, with the theme of dressing up, the third part of the *Odyssey*, which contains most of the occurrences of the family of *kerdos*.

It also highlights Odysseus' linguistic skills, which constitute a large part of his *kerdos*, and which are clearly stated in the first stage of his "resurrection" when,

[5]P. Pucci believes that this occurrence is also a case of rivalry between the two texts, *kerdos* being valued in the *Odyssey*, and criticized in the *Iliad* (*Ulysse polutropos*, p. 152 n. 14), but but we have demonstrated, with examples from the chariot race, that *kerdos* is not necessarily negative in the *Iliad*.

[6]Given that the order is complicated in the *Odyssey*, which does not have a more or less linear narrative like the *Iliad*, but presents three sequences: the Telemachy (the adventures of Odysseus' son, Telemachus, who sets out in search of his father), the tales of Odysseus at the court of the Phaeacians, and above all his return to Ithaca and the reconquest of his kingdom in the guise of a beggar. Most of the occurrences are found in the first and especially the last part, and in fact Odysseus never applies the concept of *kerdos* to himself, except in one occurrence with Penelope, but it is always the narrator or the other characters.

having arrived on the island of the Phaeacians, he approaches Princess Nausicaa: Odysseus, after his shipwreck, naked and dirty, must address the princess without frightening her αὐτίκα μειλίχιον καὶ κερδαλέον φάτο μῦθον. "Immediately he gave a honeyed speech full of *kerdos*[7]" (VI 148).

Above all, the creation of a bond is evident in the exchange between the hero and the goddess Athena in *Song* XIII, a goddess who regularly assists him in his adventures: Odysseus has just arrived in Ithaca, but doesn't yet know that he's back home, and the goddess comes to welcome him in the guise of a shepherd. Immediately the hero invents a complicated story to conceal his identity: αἰεὶ ἐνὶ στήθεσσι νόον πολυκερδέα νωμῶν- "always in his heart meditating a *polykerdos*[8] project" (v. 255), and this amuses the goddess, who obviously knows who he is, and replies thus: κερδαλέος κ᾽ εἴη καὶ ἐπίκλοπος ὅς σε παρέλθοι / ἐν πάντεσσι δόλοισι, "he would be *kerdaleos* and thief, the one who would surpass you in wiles of all kinds" (v. 291-292). Most importantly, she recognizes just after the identity of their cunning nature, and this resemblance actually seals their alliance: ἀλλ᾽ ἄγε, μηκέτι ταῦτα λεγώμεθα, εἰδότες ἄμφω / κέρδε᾽, ἐπεὶ σὺ μέν ἐσσι βροτῶν ὄχ᾽ ἄριστος ἁπάντων / βουλῇ καὶ μύθοισιν, ἐγὼ δ᾽ ἐν πᾶσι θεοῖσι / μήτι τε κλέομαι καὶ κέρδεσιν- "but let us cease this talk (lies and deceit), since we both know *kerdos*, you the best of mortals for projects and speeches, and I of all deities reputed for my *kerdos*" (v. 296-299)[9]. Here we see the parallelism between the hero and the goddess, one being to the world of men what the other is to the world of gods.

While, as we have said, Odysseus' *kerdos* is largely that of words, it is not limited to this, and the hero also demonstrates his intelligence by avoiding provoking the dog of the shepherd Eumaeus, the first inhabitant of Ithaca with whom he makes contact: αὐτὰρ Ὀδυσσεύς/ἕζετο κερδοσύνη, σκῆπτρον δέ οἱ ἔκπεσε χειρός. / ἔνθά κεν ᾧ πὰρ σταθμῷ ἀεικέλιον πάθεν ἄλγος, "but he sat down and dropped his staff from his hand, with *kerdosynè*. Otherwise, there, near his pigsty, he would have suffered an undignified treatment" (XIV 30-32). The turn of phrase, with the noun *kerdosynè* in the dative case, is the same as when he avoids Hélène's questions, and seems to specialize in the same expression of what not to do, the strategy of avoidance.

[7]The Greek word is an adjective, κερδαλέος, which is attested only four times in Homer, with another application to Odysseus, when he weeps among the Phaeacians upon hearing the tale of the Trojan War. King Alcinoos then urges him not to "shut himself up in *kerdaleos* thoughts" τὼ νῦν μηδὲ σὺ κεῦθε νοήμασι κερδαλέοισιν (VIII 548). The hero is incognito, and this employment is clearly reminiscent of the story told by Helen, with the same skill in avoiding discussion, and il also annonces the discussion he will later have with the goddess Athena.

[8]The compound means "with a lot of *kerdos*".

[9]This strong, almost intrinsic link between the goddess and the *kerdos* is already mentioned in the *Iliad*, when the goddess, in the guise of Hector's companion Deiphobos, urges the Trojan prince to march out to meet Achilles: ὣς φαμένη καὶ κερδοσύνῃ ἡγήσατ᾽ Ἀθήνη· "Having said this, she led him with *kerdosynè*" (XXII 247). Here again, *kerdosynè* (which could be translated as "the fact of having *kerdos*") is a matter of language.

Penelope and Telemachus

The *kerdos* also characterizes Odysseus' family, forming an almost blood link with him. It concerns his wife Penelope, as early as Song II of the *Odyssey*. Her son Telemachus complains to the inhabitants about the outrages he suffers at the hands of the suitors[10], but they answer by blaming his mother: σοὶ δ᾽ οὔ τι μνηστῆρες Ἀχαιῶν αἴτιοί εἰσιν, / ἀλλὰ φίλη μήτηρ, ἥ τοι πέρι κέρδεα οἶδεν. "it is not the Achaean suitors who are guilty, but your dear mother, who knows *kerdos* very well" (v. 87-88). The suitor then recounts the ruse of the veil, woven and unwoven, and concludes by expressing some admiration for this stratagem: ὅ οἱ πέρι δῶκεν Ἀθήνη / ἔργα τ᾽ ἐπίστασθαι περικαλλέα καὶ φρένας ἐσθλὰς / κέρδεά, "what Athena gave him, namely very fine works, and remarkable thoughts, and *kerdos*" (v. 116-118). We see here the link with Athena, which actually reinforces the one with Odysseus, and the word *kerdos*, the last term of a rather vague enumeration, is a point made by the suitor to a woman who is certainly of great quality, but also, by his idea, "bitchy"[11].

And of course *kerdos* is also the prerogative of Telemachus, his father's son, or rather it should be, for his mother reproaches him for showing less of it at his almost adult age than when he was a child: Τηλέμαχ᾽, οὐκέτι τοι φρένες ἔμπεδοι οὐδὲ νόημα / παῖς ἔτ᾽ ἐὼν καὶ μᾶλλον ἐνὶ φρεσὶ κέρδε᾽ ἐνώμας- "Telemachus, you no longer have either reflection or wisdom; when you were a child, you meditated more *kerdos* in your heart" (XVIII 215-216). The use of the word carries an (unintentional?) irony, for she reproaches her son for having let the suitors mistreat Odysseus disguised as a beggar, and this "mistreatment" is precisely part of the *kerdos* prepared by father and son, as we see in the sequel where the son installs his father the false beggar in a strategic place, to prepare the massacre of the suitors: Τηλέμαχος δ᾽ Ὀδυσῆα καθίδρυε, κέρδεα νωμῶν, "Telemachus, pondering *kerdos*, made Odysseus sit down," (XX 217).

We have here not only an echo effect with Penelope's previous comment, but also with her father in his exchange with Athena (XIII 255, cf. *supra*), with the same verb *nômaô*, whose primary meaning is the idea of skillfully handling a tool, weapon or boat. And this theme of *kerdos* also marks Telemachus' evolution towards adulthood and manhood, as he makes it his own, advising his father to act quickly against the suitors, and not to waste time on the question of who in Ithaca has remained loyal to him or not, as the king would like to do: ἀλλ᾽ οὔ τοι τόδε κέρδος ἐγὼν ἔσσεσθαι ὀΐω / ἡμῖν ἀμφοτέροισι "for I myself think there will be no *kerdos* for us both" (XVI 311-312), and the father finally goes along with his advice. Contrary to his mother's opinion at the beginning of the *Odyssey*, the young man proves himself, like his father, an expert in *kerdos*.

[10]The suitors are Greek noblemen who, during Odysseus's absence - 10 years for the Trojan war and 10 years for the voyage - try to seduce Penelope. They occupy the royal palace of Ithaca after the Trojan War, when Ulysses remains absent for no reason. They wanted to seduce Penelope, to marry her, but also to take possession of Odysseus' residence and throne. But she wanted to wait for Odysseus. So, she promised her suitors that she would marry the day she finished weaving her tapestry. However, to ensure that day never came, she wove a canvas during the day and undid her day's work at night.

[11]The relationship is also forged through weaving: this craft is regularly used as a metaphor for complex, secret intrigues, and Athena is also the goddess of weaving (see the Arachne "Spider" myth).

Kerdos **of the Song XXIII**

The last song of the poem, after the massacre of the suitors, carried out without mercy or compassion, nevertheless raises questions about the status of the *kerdos*: we see this in the final reconciliation between the spouses, when Penelope, weeping, apologizes for her mistrust, explaining that too many evil men have claimed to have news of her husband: αἰεὶ γάρ μοι θυμὸς ἐνὶ στήθεσσι φίλοισιν / ἐρρίγει μή τίς με βροτῶν ἀπάφοιτο ἔπεσσιν / ἐλθών· πολλοὶ γὰρ κακὰ κέρδεα βουλεύουσιν. "My heart still trembled in my chest that some man might come here to deceive me with his words. For many meditate on evil *kerdos*." (XXIII 215-217). In addition to the application of the name, once again, to the tricks of language, this use is remarkable for the qualification of the noun by the adjective *kakos* "bad," which is an exception[12] and clearly implies that, contrary to what we often see in the *Iliad*, *kerdos* is not negative in itself, which allows its association with Odysseus, with the concept of a positive and a negative *kerdos*.

Another occurrence, shortly before, is quite surprising. Odysseus and his friends seek to hide the news of the suitors' deaths for as long as possible, to delay the anger and vengeance of their families, and they decide to create the appearance of a celebration in the palace and go themselves to the orchards (where Odysseus will find his father) and the hero thus sets out his plan: ἔνθα δ᾽ ἔπειτα / φρασσόμεθ᾽ ὅττι κε κέρδος Ὀλύμπιος ἐγγυαλίξῃ. "Then we'll think about what kind of *kerdos* the Olympian will give us." (XXIII 139-140). Remarkably, at the end of his adventures, the hero seems to renounce the *kerdos* that was so much his own, ultimately handing it over to the Olympian, *ie* the king of the gods. And indeed, it is the gods who conclude the poem with a final peace pact in the following song. We can assume that at this point, with lucidity, the hero recognizes that he cannot do everything and puts himself back in the hands of the gods. However, we also know that the authenticity of the latter songs is disputed, and this may be an attempt to "moralize" deceitful characters who are experts in trickery.

This shows the complex web of meanings and relationships that weave themselves, in Odysseus' family, between the father and his son, who is in his image, between his wife and Athena, between the hero and the goddess herself; this means we must always be careful when we encounter the word in the *Odyssey*, as it clearly has a constant association with Odysseus' world. This being the case, and to return to our original theme, does the *kerdos* family in the epic only ever signify a kind of cunning or skill, and is it never linked to wealth or money? We can cite two occurrences, which undoubtedly mark the beginning of the semantic evolution that will later give to the word *kerdos* the meaning primarily of material profit.

Money?

Odysseus, disguised as a beggar, attends one of the suitors' banquets, when a suitor mocks him, who is not said to be a sportsman, but: ἀρχὸς ναυτάων οἵ τε

[12]No noun in the *kerdos* family is accompanied by a qualifying adjective outside of this occurrence.

πρηκτῆρες ἔασιν, / φόρτου τε μνήμων καὶ ἐπίσκοπος ἦσιν ὀδαίων / κερδέων θ᾽ ἁρπαλέων, οὐδ᾽ ἀθλητῆρι ἔοικας. "Rather a ship's commander, keeper of the cargo and overseer of traveling and desired *kerdos* (?)" (VIII 162-164). This is a difficult passage, the meaning of the adjective *harpaléos* in particular being open to discussion ("eagerly grasped", "hence eagerly desired", "attractive"?), and the use of *kerdos* here is surprising, but certainly not unrelated to the fact that Odysseus is being addressed, so much is the word associated with him.

However, the meaning is clearly that of financial profit, and it is also perhaps a literary echo of the other instance where we can assume a "financial" use of the word. Indeed, during the reunion between Odysseus and Penelope, the latter, still incognito under his beggar's disguise, can't help telling his wife more lies, and so he asserts that Odysseus is very much alive, and could have returned long ago, but: ἀλλ᾽ ἄρα οἱ τό γε κέρδιον εἴσατο θυμῷ, / χρήματ᾽ ἀγυρτάζειν πολλὴν ἐπὶ γαῖαν ἰόντι- / ὡς περὶ κέρδεα πολλὰ καταθνητῶν ἀνθρώπων / οἶδ᾽ Ὀδυσεύς, "but it seemed more advantageous (*kerdion*) to him to amass wealth by going around the world ; for Odysseus knows, more than mortal men, many *kerdos*" (XIX 283-286). Once again, the *kerdos* is here (in addition to the comparative form) because we're talking about Odysseus, but it's really the idea of material profit that begins, and this may explain the meaning that the word commonly takes on in subsequent Greek texts.

We have saved for last an occurrence that continues to trouble us. During his conversations with his swineherd Eumaeus, Odysseus invents a fictional story about himself, claiming that he was kidnapped and handed over to Phoenicians as a child by a servant of his noble father, who wanted to pay for her place on the ship to return home. The woman describes the child to the sailors as follows: παῖδα γὰρ ἀνδρὸς ἑῆος ἐνὶ μεγάροις ἀτιτάλλω, / κερδαλέον δὴ τοῖον, ἅμα τροχόωντα θύραζε·/ τόν κεν ἄγοιμ᾽ ἐπὶ νηός, ὁ δ᾽ ὑμῖν μυρίον ὦνον / ἄλφοι, "I am raising a child of my brave master at the manor: a *kerdaleos* little boy who runs after me when I go out. I can bring him to your ship; you will be paid a very high price for him." (XV 450-453). Is the meaning of the adjective *kerdaleos* subjective (the child that Odysseus claims to have been is already full of *kerdos*) or objective (he will be a source of material profit), or does the cunning hero want to combine both possible meanings?

Conclusion

This study will, we hope, have shown the particularity of the *kerdos*' family, its close link with Odysseus and the stylistic use made of it, particularly in the *Odyssey*, to make the hero and his entourage the sole possessors of the kerdos. But it will also have shown that the financial aspect also exists, even if it seems to come later. Throughout the history of Greek literature, and especially in classical literature, material wealth has an extremely negative aspect (mortal and corrupting), and this negative aspect appears punctually in the Homeric epic, in uses that do not apply to Odysseus, and even for Odysseus, as the latter is not always a positive character. It remains to be seen what lyrical and classical poetry will make of this.

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Arab Music Traditions and Music Therapy: Ibn Sīnā's Contribution to Music Therapy

*By Maria Rosaria D'Acierno Canonici Cammino**

*This paper is based on a diachronic and synchronic analysis about the use of music as a therapeutic means. The diachronic analysis has been helped by the reading of the many scientific texts written by ancient as well as modern writers, while the synchronic analysis has considered personal recent experiments conducted in some Italian schools whose curriculum enhanced music from many different sides. The paper has two aims: 1) to stimulate further research on nowadays music therapy, and 2) to recognize how advanced medicine was during the medieval era in the Middle East, compared to medicine in the Western civilization; a civilization which hardly recognizes the Arab contribution to science. Rather, for the Arabs, the Dark Ages was a time rich in all branches of culture and science: philosophy, technology, metallurgy, textiles, agriculture, mathematics, astronomy, chemistry, architecture, and medical techniques, such as distillation, crystallization, cataract, and, furthermore, the use of alcohol as an antiseptic. It was a determining era for the European Renaissance, due to the Arabs' scientific as well as philosophical studies, later transferred to Europe, in particular, to the monasteries in South Italy, through Spain and Sicily. In order to focus on the relevant role of Islamic music therapy, during the Middle Ages, a comparison with contemporary music therapy in the West, will serve to stimulate this field. Then, since this analysis focuses on music therapy, inevitably, music, as an art and as a science, will occupy a relevant role by tracing how music developed in the Middle East, under the influx of Greek and Indian traditions. While examining medicine and music therapy, the attention will focus on the philosophical field (*Al-Kindī, Al-Fārābī, the Ikhwān al-Ṣafā, Ibn Sīnā, al-Ghazālī, Ibn al-Khaldūn*), since the field of philosophy used to include many different sciences: alchemy, astrology, mathematics, physics, as well as medicine and music, and, moreover, how music therapy was applied in the department of Mental health. This essay will be more narrative then critical. The only critical point, especially at this particular historical moment, is to emphasize that Western civilization should value the teachings of the Islamic world more highly by incorporating the contributions of their philosophers into school curricula.*

Arab Music and the Western World

Since this research wants to highlight how advanced was the culture of the Arabs compared to the one in the Western society during the Middle Age, quoting Zarlino, Foster and Farmer will help the question. This is not a debate, rather it will be a stimulus to break down cultural barriers, and accept widely other cultural ideologies.

Gioseffo Zarlino (1517-1590), the Italian musical theorist, acknowledged the influence of the Arab philosopher Ibn Sīnā, on his own theoretical works, and more generally on the Arabian Renaissance. Zarlino frequently quoted a specific sentence from Ibn Sīnā in order to enhance the relationship between music and science: "Music

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derives its principles from the science of nature (physics) and the science of numbers (mathematics)." (Zarlino 1558).

> "As early as the second millennium B. C. we have evidence of a South Arabian kingdom, where we come upon traces of 'a high state of civilization' whose culture had much in common with that of Babilonia-Assyria. Indeed, the Greeks were culturally indebted to the Arabs, and Hommel and others hold that Greece probably borrowed from South Arabia, not only Apollo, Leto, Dionysos and Hermes, but also its alphabet." Farmer (1925).

In contemporary scholarship, Chris Forster recognizes the importance of Arab music and tuning theory. Because of the strict relationship between language and music, he, like Farmer, criticizes those musicians who do not know Arabic, since they cannot read the original works of Arab authors (Foster 2010). According to him, the lack of linguistic knowledge limits any aspect of cultural growth. He says that "of the treatises on music written by Al-Fārābī (950), Ibn Sīnā (980-1037), Safi Al-Din (d. 1294), Al-Jurani (d. 1413), Al-Lādhiqī (1494), and Al-Shirwani (1626), not a single work has ever been translated into English." Furthermore, "due to intractable religious, linguistic, and intellectual prejudices against Islam, Christian-dominated institutions throughout Europe – such as Catholic and Protestant churches, schools and universities, managed by 1600, to completely eradicate the Arabian influence from the written history of European religious music." (Forster, n.d.11,45). In order to validate his opinion Foster poses two important reasons: 1) linguistic and 2) religious.

1) Linguistic, because the lack of foreign language knowledge by depriving the subjects of cultural and environmental information, made them strongly locked up within their single angle.
2) Religious, because people should learn to accept others' creeds and different socio-anthropological behaviour. With such a short mind, it will be difficult to enjoy life. In brief, considering the problem from a general point of view, to know a language, to be able to pronounce it and listen to the sound of its words should be a useful exercise which focuses on listening to music, too, since language with its pitch, timber, accents, rhythm, and inflection patterns is a kind of music.

When talking about music, the association with language is inevitable, because language, "an ability uncontroversially present in every one of us" as Pinker says "is so tightly woven into human experience that it is scarcely possible to imagine life without it. … Aphasia, the loss of language following brain injury, is devastating, and in severe cases family members may feel that the whole person is lost forever." Pinker considers language an "instinct, an art. It conveys the idea that people know how to talk in more or less the same way spiders know how to spin webs." He agrees with Darwin's view of language (natural selection) and, when he uses Darwin's words ("that perfection of structure and co-adaptation which justly- excites our admiration, … an instinctive tendency to learn this art, to speak, as we see in the babble of our young children", Darwin 1871), he claims "that language should be considered not "as an insidious shaper of thought" but "as one of nature's engineering marvels … human language is a part of human biology – an instinct – at all." This art is not exclusive to

humans but it is "a design seen in other species such as song-learning birds." (Pinker 2005). He rejects the thesis of language learned because of imitation, and follows Chomsky's revolutionary theory that children learn language for their innate capacity. In fact, they generate sentences always new, since they have their own mental grammar, so that grammar develops rapidly with no formal teaching. This happens, Chomsky explains, because there is a *Universal Grammar* for all languages. This *Universal Grammar is* based on linguistic universals, so that it enables human beings to extract syntactic patterns out of their parents' speech. (Chomsky 1975). These observations should push us to recognize we are indebted to the Arabs for the vast cultural patrimony we have inherited; a knowledge not only concerning music, poetry and musical theory, but a knowledge embracing several scientific fields, which have contributed to spread civilization all over the world.[1]

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Music for Al-Kindī, Al-Fārābī, The Ikhwān, Al-Ṣafāʾ, Ibn Sīnā, Al-Ghazālī, Ibn Khaldūn

The Arabs' eclectic scientific knowledge, reinforced by their research about the movements of the 'fixed stars' and planets, gave them the chance to postulate various theories about the universe and about human existence and human nature. Under the influx of Greek philosophy, which played a great role also on the Arab theory of music, the Arabs evaluated human thoughts as being embedded in rotating spheres made of ether. Those spheres emitted vibrations, and the subsequent sound waves played a fundamental role in the development of music. Musicians were able to link those universal sound waves to the sound patterns implied in musical compositions which served to elevate both a sense of community and personal emotions. These developments are at the heart of the highly engaging music used by the Sufis in their striving to come into harmony with God. The following passages illustrate how Sufi music seeks to create a connection with the divine through ecstasy.

> "Hearts and inmost thoughts are treasuries of secrets and mines of jewels. … There is no way to listen to music and singing, and there is no entrance to the heart save by the ante-chamber of the ears. So musical tones, measured and pleasing, bring forth what is in it and make evident its beauties and defects. … And listening to music and singing is for the heart a true touchstone, … Whenever the soul of the music and singing reaches the heart, then there stirs in the heart that which in it preponderates. … the effects which music and singing produce upon the heart, consisting of ecstasy, and upon the members of the body, consisting of dancing and crying out and tearing of garments." (Al-Ghazālī 2015).
>
> "I composed songs; I sang and played the vina; and practising this music I arrived at a stage where I touched the Music of the Spheres. Then every soul became for me a musical note, and all life became music. … the Sufi mystic teaching concerning sound

[1]Hazrat, too, stresses on the link between language and music, and emphasizes that music comes before language: "An infant respond to music before it has learnt how to speak; … In the beginning no language such as we know have existed, but only music … sounds. … by the variety of his musical expressions. … This gradually transformed music into a language, but language could never free itself from music." (1921: pos. 13, 34, 60).

> and music – sound as the basis of creation and music as an essential means towards spiritual development." (Khan 1921).[3]

The Sufi soon adopted music as a great therapeutic resource, and we have evidence of this aspect in the *Epistle 5.* When the Ikwān want to understand the evolution of our life as well as the main aim of the soul, that vanishes once lives the body in order to begin a new life, they make a parallel between the evolution of melodies and rhythm; evolution which vanishes, once images have been produced, after penetrating the soul through hearing. It is the same for speech, that vanishes, once words have been understood or memorized. The souls, too, once maturity has been completed and have been fully achieved their purpose within the body, are "extracted from the bodies just as a pearl from the oyster shell." (Epistle 5: 126).

> "… consider and understand that your body is an oyster shell and your soul a precious pearl that should not be neglected, for it is of great value to its Creator." (Epistle 5:127)

Music, based on perfect mathematical and emotional proportions, is a sort of metaphor used to enhance the perfection of God. In *Epistle 5* the Ikhwān attest that there is a strict relationship between the Greek theory and the Islamic view of music derived from the tones produced by the movements of the celestial spheres:

> "It is said that because of the purity of the substance of his soul and the intelligence of his heart, Pythagoras the sage was able to hear the tones of the movements of the celestial spheres and the heavenly bodies, and through the outstanding quality of his thought was able to derive the basic principles of music and the tones of melodies. He is the first of the sages to have spoken about this science and to have given instruction concerning this secret, and after him came Nicomachus, Ptolemy, Euclid, and other sages" (*Epistle 5*: 121)

When examining music, the Ikwān consider the role of mind, that of hearing, sight, as well as all the psychological implications felt by both the listeners and the players. From the socio-cultural point of view, they say that music is so important that deserves a discussion even from the Islamic jurisprudence perspective, thus, evaluating, if it is forbidden or permitted (*ḥalāl* – حلال *orḥarām* – حرام).

Music is a product of the sages who "invented the rhythmic principles of its melodies, and the combination of its notes" and "would intone [la‖ana] [texts], accompanied by an instrumentalist's notes [ma'a naghamāt al-mūsīqār], in temples and houses of worship." (124).

Music is forbidden when people use it in order to move material passions, which increase the pleasure of this world by negating the joy of the spiritual world. In so doing, people become "prey to doubt and confusion." (125). It is permitted "to soften hard hearts and to awaken heedless soul from neglected sleep and spirits idling in ignorant slumber …." (123).

From these considerations, it is a short step to the use of music in medicine in order to alleviate both physical and psychological pains. As Carmela Baffioni claims, the Ikwān were aware of the long medical science tradition, so that medicine was

introduced in education despite not being part of the *curriculum*.[2]

The lute, with its four strings, each resembling the fire, the air, the water, the earth, has a precise effect on the listeners' soul and body:

> "… the highest string strengthens the humour of yellow bile, … the second the humour of blood, … the third the humour of phlegm, … the fourth the humour of black bile." (128-129).

Of course, the sages, driven by their wisdom, dictated these principles, which the Ikwān used in the hospitals "at times contrary to the nature of the illness and maladies, and why they confined themselves to four strings, no more, no less. The reason why they made the thickness of each string one third greater than the next higher-pitched one is also because they imitated the wisdom of the Creator, exalted be His name, following the mars of His creation in natural phenomena." (130).

In the "world of generation and corruption, or the sub-lunar world" the perfection of God is in everything and in everybody, so that it is visible in the proportions of our body (28 parts of the human body; the twenty-eight letters of the Arabic alphabet; the twenty-eight mansions of the Moon; in the prosodic feet of poetry and song, based on metre and rhyme, and in the most eloquent speech, which reflects the perfect number, that is to say, number twenty eight).

Even calligraphy, they claim, because of the perfect structure of the letters, that must respect the length of the straight and curved lines, reflects the proportion of the whole universe. The Ikwān, soon add that we can find the same proportion typical of the Arab script, in other languages, too.

> "We may state that the foundations of the letters of scripts, for whichever language they have been devised, … is based in every case on the straight line which is the diameter of a circle and the curved line which is its circumference. … in Indian [numerals], ٩٨٧٦٥٤٣٢١ and similarly Syriac [script], and Hebrew …." (140).

Within Islam, there is a long debate between scholars and theologians about listening to, practicing, and making music, depending on the interpretation of the Qu'rān, since the Holy Qu'rān (**القران**) and the Prophet's *ḥadīths* (**حديث ج احاديث**) are the source of both religious and everyday behaviour (*sharia*).

[2]"Gli Ikwān al-Ṣafā dimostrano di essere ben consci della grande antichità della scienza medica (*al-ṭibb*, o 'ilm al-ṭibb), ben oltre la Grecia (*Ep*. 28, III, 29-.8-11). Essa però non è annoverata tra le scienze costituenti il -*curriculum*, ma è considerata come collegata e 'sussidiaria' ad esse (*Ep*. 7, I, 272. 7). Fa comunque parte delle materie dell'educazione (*Ep*. 46, IV, 63.21)."Baffioni C., Medici, medicine, magia, scienza e sapienza nelle *Rasā'il* degli Ikwān al-Safā'in *L'ottimo medico è anche filosofo*, Le Due Torri, 2018: 118.

> "During certain epochs, music was highly valued; during others, it was outlawed and condemned. But no matter how perspectives may have changed throughout history, music – specifically song – was and still is inseparably linked to the life of the Arabs, assuming an indispensable function at many social events" (Touma: xix).[3]

When considering this field, it is worthwhile quoting one of the most authoritative voices of Islamic world — al-Ghazālī (1058-19 December 1111) — (**غزالي**), who has a clear position within the philosophical movement of his age.[4] In his work *Revival of Religious Sciences - Iḥyā' Ulūm al-Dīn* (**إحياء عُلُوم الدين**), he feels the urgency to delineate what music, both listening and singing, should imply in order to be considered forbidden or lawful:

> " … an explanation is needed of what has been said with regard to listening to music and singing and with regard to ecstasy, and also a statement of what advantages are in these things and what disadvantages and what is recommended in them of laws and modes, and what pertains to them of disagreement on the part of the learned as to their being either forbidden or allowed. … So it is not possible for a thing to be unlawful on the ground that it is speech, having a meaning, equipped with agreeable and measured melodies." (Al-Ghazālī 2015).[5]

Al-Ghazālī explicitly declares his thought about how music should be viewed under Islamic principles; so that, before dictating his fundamental 'rules,' he examines different points of view, about permitting or forbidding music. But, he, soon, adds that those opinions do not lead to any reasonable conclusion:

> "Know that the listening comes first, and that it bears as fruit a state in the heart that is called ecstasy; and ecstasy bears as fruit a moving of the extremities of the body, either with motion that is not measured and is called agitation or with a measured motion which is called clapping of the hands and swaying of the members. Let us, then, begin with the rule as to listening … and we will adduce with regard to it those sayings which express clearly the views which have been held on it. Thereafter, we will mention what points to

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[3]Touma H. H., *The Music of the Arabs*, Amadeus Press, Portland, Cambridge, 1996.

[4]Cf. Al-Ghazālī contributed significantly to the development of a systematic view of Sufism and its integration and acceptance in mainstream Islam. He was a scholar of Sunni Islam, belonging to the Shāfi'ī school of Islamic jurisprudence and to the Asharite school of theology. Al Ghazālī wrote an infinite numbers of books, these are only a few of them: Theology: *al-Munqidh min al-ÿalāl* (*Rescuer from Error*); ðujjat alðaqq (Proof of the Truth); *al-Iqti¡ād fīl-i`tiqād* (*Median in Belief*); Sufism: *Mīzān al-'amal* (*Criterion of Action*); *I¡yā''ulūm al-dīn*, "Revival of Religious Sciences" (Ghazālī's most important work); *Bidāyat al-hidāyah* (*Beginning of Guidance*); Philosophy: *Maqāṣid al falāsifa* (*Aims of Philosophers*) [written in the beginning of his life, in favour of philosophy and presenting the basic theories in philosophy, mostly influenced by Avicenna's works]; *Tahāfut al-Falāsifa* (*The Incoherence of the Philosophers*), [in this book he refutes the Greek philosophy aiming at al-Fārābī and Avicenna, and of which Ibn Rušd wrote his famous refutation *Tahāfut al-tahāfut* (*The Incoherence of the Incoherence*)]; Jurisprudence: *Fatawā' al-Ghazālī* (*Verdicts of Ghazālī*); *Al-wasīṭ fī al-madab* (*The medium* [digest] *in the Jurisprudential school*); *Kitāb tahzīb al-Uṣūl* (*Prunning on Legal Theory*); *Al Mustasfā fī'ilm al Uṣūl* (*The Clarified in Legal Theory*)..

[5]Al- Ghazālī, *Revival of Religious Sciences Ihya' Ulum al-Din*, Part I and Part II (1901), Part III (1902), "Emotional Religion in Islam as Affected by Music & Singing" (eds. MacDonald, D. B.) (1902). In *Journal of the Royal Asiatic Society of the Great Britain and Ireland*, pp. 705-48.

its permissibility, and follow that up with an answer to what has been laid hold of by those who assert that it is forbidden" (Al-Ghazālī idem: 200).

He states that since listening to music, singing and speaking are natural gifts coming from God, they should be lawful, unless they contain some unlawful considerations:

"… it is impossible that … these sounds should be forbidden simply because they are pleasant and measured; for there is no one who regards the voice of the nightingale or those of other birds as forbidden. And there is no difference between our throat and another … So we ought to draw an analogy from the sound from the sound of the nightingale to the sounds which issue from all other bodies, especially to the sounds belonging to man, as those which issue from his throat, or from the *qaḍīb* (**قضيب**)[6] or the *ṭabl* (**طبل**) or the *duff* (**دُف**) … But from this there is excepted those idle instruments of music, both stringed instruments and pipes, to forbid which a law was revealed …" (al-Ghazālī: 211).

In fact, even poetry and speech might be considered unlawful if they include an unlawful meaning:

"If there is in it anything forbidden, saying it, either in prose or verse, is unlawful, and speaking it, whether with melodies or without" (al-Ghazālī: 215).

The Origins of Music Therapy

After mentioning the general principles regulating music, we will examine how music therapy started within Islamic world. Beside Greek medicine, also Indo-Persian medicine had a great impact on Islamic medicine, and its consequence was the building of the first Islamic hospital (Bīmāristāns) in Baghdad, in which Hārūn ar-Rashīd's vizier, Yaḥyā ibn Barmak, promoted the translation of Indian medical works (late eighth century). Galen's medicine was still very prominent, and its "weight also worked to separate the hospital with the secular patronage from Muslim religious control and from integration into Muslim education. The concentration on Galenic texts, whether in Syriac or in Arabic, remained an important feature in Islamic society, lacked any criteria for medical expertise except the doctor's demonstrated knowledge, primarily of the Greek classics." (Dols 1992).

When the Arabs invaded the Middle East and North Africa in the seventh century A.D., they included within their scientific culture, already enriched by other cultures, especially that of India and Egypt, the Greek scientific knowledge, too. As Dols affirms, "The predominance of the Greek tradition was largely due to the Hellenized Christians, Jews, and Persians, who made up the bulk of the population in the newly established empire, and to the persistence of their centers of learning." (Dols 1984).

[6]**Qaḍīb "**is a rhythmic wand used by early musicians and Qur'ān readers". Farmer (1939) "A Maghribi work on musical instruments." In *The Journal of The Royal Asiatic Society:* 339-53.

> "After the death of the Prophet Muḥammad in 632 and the defeat of the tribes of Central Arabia which had revolved against Islam, we come to the unparalleled expansion of the Arabs: within a century they had created an empire from Spain to the valley of Indus. With Egypt, Syria, Mesopotamia and Persia, countries had fallen to them whose population had reached a high level of culture, which was shot through with Hellenism and thus in certain area presented a relatively uniform picture. After the Near East had been more and more Christianized, Koine-Greek lost in significance in this area as *lingua franca*, while the native languages, Aramaic in Syria and Iraq, Coptic in Egypt, and Pahlavi in Persia, flourished again." (Ullmann 1978).

The consequence, was that, scholars, once lost the familiarity with the Greek language, because the Umayyad caliphs were not interested in keeping the Hellenistic culture, felt the urge to translate the Greek works into their own languages.

Al-Kindī (الكندي) (ca. 801-866), the first philosopher of the Islamic world, wrote many treatises under the influence of ancient Greek philosophers whose works had been translated into Arabic. He established the foundation of Islamic philosophy, which would, then, be developed by Muslim philosophers such as al-Fārābī (ca. 870-950) and Ibn Sīnā, (980-1038), and by European scholars only after the twelfth century. In ancient Greece and in the Islamic world, music was regarded as a science adjacent to philosophy. Hence, al-Kindī's musical theory must be analyzed from the philosophical point of view. In his treatises on music (*Music and Ecstasy*, and *The Mysticism of Sound and Music)*, he evidences his notation, which utilizes the chromatic scale. He was also the first to create melodies using the letters of the alphabet: A. B. J. D. H. W. Z. H. T. Y. K. L.

This phonetic notation had been applied long before the European notation, and was also prior to that attested by al-Fārābī, who used onomatopoeia – tan-tanan-tananan – in order to beat the time. While giving a description of the *'ud* and its strings, he explains the method of tuning the strings, then, that of playing, and constructing the instrument respecting its size. Al-Kindī was not only indebted to the Greek theory, but he enriched it adapting it to the Islamic musical tradition. In fact, he connected the *'ud* with cosmology, and emphasized the heavy influence each string has upon the soul (Arai 1994). Rather than using music purely for entertainment, he suggests using it as a resource to improve health, thus, making a connection between music and medical science. In the 9th century A.D., al-Kindī cured with music a child, who was completely paralyzed. In his book *Risalah Fi al-Luhun wa al-Naghmi*, he describes the relationship between astronomy and music, which, according to him, can be explained by emphasizing the relationship between harp strings and astrology.[7] Al-Fārābī (الفارابي), wrote *Kitāb al-mūsīqā al-kabīr* (*The Great Book of Music*).

Other experts in music theory were Ibn Khaldūn, the Ikhwān al-Ṣafā' (اخوان الصفا) and Ibn Sīnā (ابن سينا). The latter tells us that the practical musicians had a

[7]Al-Kindī in the *Forty Chapters on Judicial Astrology*, and *Theory of The Magical Arts*, because of his interest in 1celestial influences on earthly phenomena, explores the relationship between harp strings and astrology. He examines the impact of celestial configurations on human affairs. He points out how humans could interact with the broader universe, so as to create a relationship between the celestial and terrestrial realms. The vibration of the harp strings can be associated with the vibration of the movement of the celestial body and the vibrations produced by the movement of our organs. (Cf. Burnett 2008).

specific notation when playing the lute (e. g. L third string; Z first, etc.). He, like the Ikhwān al-Ṣafā', used onomatopoeia to measure rhythm.[8]

Being a very advanced physician, Ibn Sīnā linked emotions to physical conditions, so that music could be included within the physical and psychological field. (cf. Ahmad 1996). When analyzing music, Ibn Sīnā traces a parallel between the perception of sound and its communicative role, drawing parallel lines between sensory and cognitive behaviour, as well as between biological and aesthetic features. We find these medical suggestions in the *Resāla fi'l-nafs* which contains a paragraph on the perception of sound. The physics of sound production is explained in the first chapter of the *Resāla fi makārej al-ḥorūf,* while the human and musical pulse is discussed in the *Qānūn fi'l-ṭebb.* He views music as a means of communication which also can infuse joy or sadness, tension, and relaxation, because of its capacity to share feelings through vibrations.[9]

Music from Mathematics to Medicine

Ibn Sīnā, in his books *Ketāb al-najāt, Dāneṣ-nāma-ye'alā'ī* and *Ketāb al-Ṣefā*, by following the Greek tradition, considers music as one of the mathematical sciences. Mathematics helps music especially when it deals with the addition and subtraction of intervals and their doubling and halving. He has openly admitted the influence of Aristotle and Ptolemy. He followed al-Kindī's classification of music viewed as a branch of mathematics. In fact, chapter three of his book on music, which became the most widespread work on the matter (*Risāla fī 'ilm al-mūsīqā* –رسالة في علم الموسيقي–), is also called: *Mathematical sciences which is on the science of Music*. Discussions on the phenomenon of sound, the dissonants and the consonants, lute fretting, and references to melodic modes by specific names, are found in most of his writings. In addition, he doubled the fourth and the fifth.[8] Furthermore, Ibn Sīnā is very famous for his work *Canun of Medicine* (قانونالطب في), a 14-volume medical encyclopaedia completed in 1025. *The Canun of Medicine* was the first book dealing with experimental medicine. Another of Ibn Sīnā's masterpieces, *The Book of Healing* (كتاب الشفاء), defines the four sciences of the *quadrivium* (arithmetic, geometry, astronomy, and music), and analyses the mind, its development, the mind and body relationship, sensation, perception, etc. His thesis is that, at the most common level, the influence of the mind on the body can be seen in voluntary movements, because the body obeys whenever the mind wishes. He further wrote that the second level of influence of the mind on the body comes from emotion and will. Avicenna, as this philosopher is known in the Western world, also gives psychological explanations for certain somatic illnesses, so he linked our body to our feelings, one influencing the other.

[8]I have seen those who were writing the rhythm as they heard it, as quickly as possible. … Music derives its principles from the science of nature (physics) and the science of numbers (mathematics)." (Ibn Sīnā 1987).
[9]When discussing the nature of sound, viewed as a psychological aspect of the human voice, he provides a distinction between articulate (speech) and inarticulate sound, evaluating the importance of the level of the voice, according to its communicative effects: lowering its intensity when hiding or expressing both weakness and obedience; using a very strong and loud intonation for communicating thread and potency. Music is the highest degree of communication because it regulates information by using a pleasant sound.

Al-Kindī, al-Fārābī, the Ikhwān al-Ṣafā', Ibn Sīnā, al-Ghazālī, Ibn Khaldūn applied the theory of numbers, and astronomy to music. In so doing, while studying the celestial bodies, they found out that our planet does not perform a perfect circular movement around the sun, but its motion is subject to the distance of other planets influencing it. Thus, by including music into the sciences of the *quadrivium*, they could develop a more sophisticated musical theory. The fact that Arab music has used modes since the very beginning means that it has always recognised mathematical sequences.

Ibn Khaldūn, in the section on *Music*, considers music a mathematical science, too, and he says that music harmony touches the soul in the same way as poetry does.

> "But the truth is that listening to music and sounds no doubt causes pleasure and emotion in the soul. The spiritual temper of man is thereby affected by a kind of elation, …. Camels are influenced by the driver's call, and horses are influenced by whistling and shouting, … The effect is greater when the sounds are harmonious ones, as in the instance of music. It is known what happens to people who listen to music.214. The third mathematical science is music. It is the knowledge of the proportions of sound and modes and their numerical measurements. Its fruit is the knowledge of musical melodies." (Ibn Khaldūnn 1967).

When he talks of 'noble crafts', he includes singing, too:

> "The craft and science are the result of man's ability to think, through which he is distinguished from the animals. Crafts noble because of (their) object are midwifery, the art of writing, book (production, singing and medicine. Singing is the harmony of sounds, and the manifestation of their beauty to the ears.318 … the setting of poems to music by scanning the sounds according to well-known fixed proportions, which causes any sound (complex) thus scanned to constitute a tune, a rhythmic mode. These modes are then combined with each other according to accepted proportions. The result is pleasant to listen to because of its harmony and the quality that harmony gives to the sounds. … Beauty in the objects of hearing is harmony and lack of discordance in the sounds. Sounds have certain qualities. They may be whispered or loud, soft or strong, vibrant or constrained, and so on. Harmony between them is what gives them beauty.329. … for we find people who are gifted by nature for the metres of poetry, the rhythms of the dance, and similar things. … The Arabs originally had only poetry,"
> which they appreciated very highly. It was distinguished in their speech by a certain nobility, because it alone possessed harmony. They made poetry the archive of their history … They (the Arabs) repeated sounds and hummed them. When such humming was applied to poetry, it was called singing." (Ibn Khaldūn 1967).

He, then, distinguishes between oral and written communication as a gift God gave to the human being who possesses the soul which is "the storehouse of human sciences." In it "God has implanted perception, enabling it to think and, thus, to acquire scientific knowledge." (Ibn Khaldūn 1967).

The Contribution of Arab Scholarship to Music and Medicine: Ibn Sīnā

> The point, I think, is not that one (the West) or other (Islam) picture is more true or has a monopoly of truth. It is that misunderstandings arise when we fail to appreciate how others look at the world, its history, and our respective roles in it. … If there is much misunderstanding in the West about the nature of Islam, there is also much ignorance about the debt our own culture and civilization owe to the Islamic world. It is a failure which stems, I think, from the straitjacket of history which we have inherited.[10]

Islamic civilization once extended from India to the Atlantic Ocean. Many places around Europe attest the heritage of Islamic tradition whose medical imprint, between the years 800 and 1450, has often been undervalued. Sicily, Napoli at the time of Frederick II, and Salerno with its first medical school in Europe based on Ibn Sīnā's, *al-Qānūn fī' l-ṭibb*, as well as the great architectural buildings in Andalusia (the Alhambra in Cordoba, and the Giralda in Seville), are only a few examples of this heritage. Suffice it to say that, in Europe, medical care was only provided by priests in sanatoriums, while the main Arab hospitals were also centres of medical education with highly developed structures; structures introduced in modern Western hospitals much later, as for examples: separate wards for men and women, medical records, pharmacies, and above all personal hygiene. In the 13th century, Ibn al-Nafis described pulmonary circulation, and Abū al-Qāsim wrote the *Taṣrīf*, the leading medical text, later used in European universities. Important names within Islamic medicine are Al-Zahrāwī, who described the hydrocephalus and other congenital diseases, Al-Rāzī, who studied the smallpox and measles, and Ibn Ruṣhd, whose medical books were also introduced in most European universities. Furthermore, some new surgical technologies such as sutures were applied during medical care.

In brief, Ibn Sīnā's greatest contribution was in the philosophy of medicine because he integrated medicine with psychology, philosophy, and music. When he talks about education, music and sport are highly considered, since music stimulates motion. Music arouses pleasure, joy, purity, and a sense of exaltation, and through it, the child is able "to perceive harmony and discord, treble and bass and how this comes about." ('Abd al-Rahmann al Naqib, 1993: 5369). He analyzed the vibrations of the body (beats, pulse, breath, hearth, etc.), and associated them to the musical intervals. In so doing, he elevated music to a medical branch. Thus, music officially entered hospitals, especially psychiatric wards. Ibn Sīnā evaluates music from the functional and the aesthetic side. While analyzing its order and composition (loudness, consonance and dissonance, genres, melody formation, rhythm, poetic meters, suspension as well as musical instruments), he discusses the evanescence of sound (sound is not permanent in both speech and music), and how the sound of both voice and music focuses on emotion. When the voice stops, or there is a musical suspension, or a sound interval, the listener's soul reacts with a sense of dread. When it reappears, the soul is pervaded with joy.

This aspect of sound and voice is related to the human and animal capacity to use them when, not only there is an urgency for communication, but also when our soul feels to interact with someone else. Under this profile, language and sound are

[10]A speech by HRH The Prince of Wales titled 'Islam and the West' October 27th, 1993.

perceived as psychological means of communication. For this reason, medicine, for Ibn Sīnā, is both a science and an art, because, within the Islamic world, art belongs to every field, to any activity in which humans get involved in order to both survive and alleviate others' suffering. In fact, talking with patients was part of the medical therapy.

> "Medicine (*ṭibb*) is the science by which we learn the various states of the human body in health, and is the means by which health is likely to be lost and, when lost, is likely to be restored back to health. In other words, it is the art whereby health is conserved and the art whereby it is restored after being lost." (Avicenna 1999).

Ibn Sīnā, in order to emphasize that pleasure arises from harmony, describes the vibrations of both music and language, and the evanescence of sound, which gives harmony through the regularity of beats. He, then, links the basic features of music and language to the physiology of the body. In fact, while a regular respiration becomes "rapid and irregular" the "affected organ first becomes hot and later on becomes cold" (Avicenna 1999), so, pain comes because the harmony of the body has been lost. In order to restore pleasure, which is "a perception of harmony", it is necessary to create harmony by generating a sense of continuity, an essential perception. Ibn Sīnā takes this notion not only from his musical knowledge (he was an expert composer and performer, too), but also from Galen's teachings:

> "According to Galen, loss of continuity is the only real cause of pain. … the sight of a white object is painful due to the active dispersion produced by them … . Smell and hearing also act in a similar manner. Loud noises set up powerful waves in the air which strike against the ear (drum) causing dispersion. Pain is undoubtedly a sudden perception of a contrary object or quality." (Avicenna 1999).

Since voice and music express and stimulate our emotions (emotivist versus cognitivist position),[11] all their ranges (pitch, vibration, tone, rhythm, loudness or lowness, interval) acquire a metaphorical meaning revealing and enhancing feelings. Thus, joy and health or sadness, melancholy and illness depend on the harmony established in both the body and the mind. This harmony, Ibn Sīnā attests, is mainly caused by the kind of breath a person possesses.

> "… it may be said that when the breath residing in the heart is plentiful (…), when it is balanced in temperament; when it has a luminous, beautiful, and bright substance then there is a strong tendency to joy. When the breath is scanty (in convalescents …); and when it is: a) very dense and coarse in substance (as in melancholy and elderly people), it cannot arouse joy; b) very delicate (as in convalescents and in women), it will not allow of expansion; and c) confused (as in melancholy people). In all these cases there is a strong tendency to depression, sadness, and grief. 149. To stimulate a correct breath, he suggests, "aromatics are so much better … ." (Avicenna 1999).

[11]According to the cognitivist position, music expresses emotion but does not induce it in listeners. So, listeners may recognize emotion in music without feeling it, unlike real, everyday emotion. According to the emotivist position, listeners not only recognize emotion but also feel it. Cognitivists: Konečni 2007, Meyer 1956, Emotivists: Gabrielsson 2002, Juslin and Västjfäll 2008).

Once the harmony of continuity and the consequent pleasure for the *known* has been broken, expectation is reinforced, and so, new goals appear to activate new expectations. Music and language with their vibrations, often interrupted, even though interruption might generate a sense of panic for the coming *unknown*, because there is a suspension of the pleasure coming from the *known*, they trigger new expectations, and so they mobilize the mind and the body (the brain organizes its areas to plan new aims) toward achieving new goals. The pleasure felt because of regular pulses (vibrations), which are linked to the *known*, is only a false perception of harmony. In fact, *the unknown*, *the desert*, according to Sergio Piro, (Piro, 1993), the 'suspension' in music[12], even though at first, might distress, confuse, and obscure the mind, rather they capture the strength for searching new roads, for achieving new goals. Ibn Sīnā, while linking the effects of music to those of the language and the pulses of the body, supports the idea of change/suspension, and concludes that the very "delight implies attaining a goal, and the one who apprehend it can only be aware of the delight because he is aware of the change. … Once the polarity has reached equilibrium, the character of the organ will have become 'setup' and cannot provide further change. From this time there ceases to be any sensation of pleasure." (Avicenna 1999).

When studying psychological symptoms, Ibn Sīnā claims that melancholia is a type of mood disorder in which the person might become suspicious, even developing certain types of phobias. He states that anger, too, might turn melancholia to mania. In so doing, he explains that a certain kind of 'humidity' inside the head, contributes to the development of some mood disorders. He found out this reaction after recognizing that this state occurs when the amount of breath changes. For instance, happiness increases the breath, which leads to increased moisture inside the brain, but if this moisture goes beyond its limits, the brain will lose control over its rationality, and, consequently, produces mental disorders. He also wrote about symptoms and treatments for nightmares, epilepsy, and weak memory, and applied psychological methods when treating his patients, mostly using music.

Emotions, Music and Healing

Ibn Sīnā, who reserved 12 chapters to music in his books *Kitāb al-Naj'āt* and *Kitāb al-Šifā*, demonstrated the close relationship between emotions and physical conditions. He then insisted on the definite role of music to heal psychological disorders. He says that the most effective of treatments is to strengthen patients' mental and spiritual energy by creating a loving and pleasant environment enriched with music, to give them more courage to fight illness. This happens because sound is an essential feature of our life, especially when it is associated with human voice and musical instruments; it is the quality of sound which creates an artistic composition. Changes of pitch, too, capture our perception and have a strong effect on our soul.

[12]Suspension in music is a means of creating tension by prolonging a consonant note while the underlying harmony changes, normally the prolonging note is on a strong beat. The result is a dissonance.

In the 18th century Hekimbaşı Gevrekzade Hasan Efendi,[13] who translated *The Canun*, by following both al-Fārābī's and Ibn Sīnā's principles, in his work, *Emraz-Ruhaniyeyi Negama-ı Musikiye*, outlines a series of effects induced by different maqām (melodic modes) during the treatment of various childhood diseases: Irak maqām – childhood meningitis; Isfahan maqām –- colds and fevers; Zirgüle maqam – - heart and brain disease; Hicaz maqām –- the urinary tract, etc. This practice was used by al-Fārābī, who classified the effects of the tonalities to the soul as follows: Rast tonality: induces joy and feelings of peace; Rehavi tonality: induces feelings of infinitude; Kuchek tonality: induces feelings of sorrow and grief, and many others. (Sadık Yiğitbaş 1972, cf. Güvenç Rahmi Oruç 1986).

Through music, people can express grief, joy, heroism, excitement, love and so on. The performance of different pieces of music, the tonalities, the melodies of each *maqām*, while providing various rules for the composition, offer a large variety of opportunities according to various situations. Al-Fārābī established that each musical piece becomes more effective if used according to the different hours of the day: Iraq *maqām* is more effective in late afternoon, Buzelik *maqām* in mid-morning, Zirefkend *maqām* before sleeping, etc.

By following al-Fārābī's classification (later accepted by Ibn Sīnā), which relates each disease to a specific time of the day, the melodies tuned should respect a specific schedule. As we have previously seen, also the Brethren of Purity[14] insist on the therapeutic value of music. When discussing the soul, the brain, and the processes of thought, they were very conscious of the effects of music on the three parts in which they had divided the soul in line with al-Fārābī: 1) vegetative, 2) animal and 3) rational. Each part, while carrying out a specific task, needs a specific kind of melody, which stimulates the activity attended. So, each soul has a distinct faculty: 1) the vegetative is concerned with nutrition, growth, and reproduction; 2) the animal with movement, sensation, perception and emotion, 3) the rational with thinking and talking. By introducing music into hospitals, they gave evidence that there is a close relationship between body and soul. In so doing, they established the theoretical basis of psychosomatic therapy.

In brief, the Brethren of Purity summarized, from the Sufi's view point, the basic principles about mental hygiene or mental health throughout a process of music therapy. According to the history of Islamic civilization, the Sufi have always been involved with music, and they have applied it in many different fields. They rely on

[13]Hekimbaşı Gevrekzade Hasan Efendi was a scientist, who, during the Ottoman period, wrote medical books about new diagnosis and treatment of diseases. Archive (2011) *Emraz-ı Ruhaniyeyi Negama-ı Musikiye*.

[14]The Brethren of Purity or Ikhw…n Al-Ÿaf… are a group of Muslim philosophers in Basra (Iraq) born in the 9th or 10th century CE. As emphasized by Godefroid de Callatay, it is difficult to identify the Brethren of Purity, so he claims that "the *Epistles were composed by a group of idealists who saw themselves* as called upon to purify Islam, based on Revelation and expressed above all in a law, by combining it with philosophy of Greek derivation. (Godefroid de Callatay, 2005: 5). Cf. Wright O. (eds.) (2011). *On Music*; cf. AL-BIZRI, N. (2012).

[14]Just to stress again the link between music and voice, the most important form of Sufi music is called *Qawwali*, which reminds the way of speaking (street singer الْقَوَّ; utterance قَوْل;III Form قَاوَل;I Form قَال). Poetry and music are two features that elevate the soul. "The act of singing poems in a musical setting, amplifies their impact. … each note struck and each word penned is a step closer to the essence of what Sufis call the 'Way of the Heart'." (Stephens 2023).

music to cure mental and nervous disorders. Sufi music was and is still used as a means for achieving an ideal perfection: a kind of perfection which means harmony with oneself in order for the soul (نَفْس *nafs)* to stay as near as possible to God. The heart is for the Sufi the centre of the human existence as well as the main organ which can attest, through the feeling of love, the existence of a Superior essence. Viewed under these premises, music has an educational and a religious approach used to achieve the highest position in this world; in other words, the nearness to God. Once music officially entered the medical practice, it followed the principles, as established by Ibn Sīnā:

> "Medicine is a science from which one learns the conditions of the human body with regard to health and the absence of health, the aim being to protect health when it exists and restore when absent…. both parts of medicine (theoretical and practical) are science, but one part is the science dealing with the principles of medicine, and the other with how to put those principles into practice … Thus, if medicine is a complete science, and music belongs to it, then music is an integral part of this branch, so it has to cure as well as to prevent psychological disorders by following a timetable as suggested by the disorder it has to repair, whose symptoms increase or diminish according to each part of the day When the notes are combined in rhythmic melodies (*alḥān*) corresponding (*mushākila*) to them, and these melodies are then used at the times of day or night whose nature is counter to that of the prevailing illnesses and sicknesses occurring, they will alleviate them, reduce their severity, and ease the pain they inflict on the sick," (Ibn Sīnā *Book of Healing* 2005).

Music Therapy: Music and Breath

In contrast to music therapy as used during the Middle Ages in the Middle East, music therapy arrived very late in Europe. In fact, when the Ottomans were treating mental illness with Sufi music, in the Western world, people with mental health problems were locked away in psychiatric wards. In Italy psychiatric hospitals were closed only in 1978 after the 180 law as attested by Basaglia and Piro, who opened special Mental Health departments. Nowadays, Western society has not yet fully perceived the great role of music, and consequently of music therapy.

Going back to the issue of harmony as stated above (harmony is achieved by controlling breath vibrations), it is interesting to point out that in Sanskrit the semantic value of *Prana* fluctuates between 'life' and 'breath.' Music helps to achieve the necessary harmony to keep healthy both the body and the soul. Meditation, called in the Vedanta *Samādhi* (to put together-to establish a relationship with God), helps to achieve that harmony through specific breathing exercises.[15]

> "Music and healing have been tied together throughout history. The continuing 30-thousand-year-old shamanic tradition of music and healing is still being practiced throughout the world. (p. 271). The Greeks philosophers Plato and Aristotle wrote on how to use music to affect health and behaviour; music continued to be tied to healing throughout the Middle Ages and later. Music has been used to treat both physical and mental problems in the United States since the late eighteenth century. … the first music therapy degree programme in the world began in 1944, followed by the first music therapy association in 1950. … The American Music Therapy Association, … was established in 1998." (Thaut and Wheeler 2011).

[15]Cf. Eliade (1997) note 19 chap. II.

Starting from the early considerations about the origin of music, it is fair to say that, if we consider that anything in our world produces vibrations in the atmosphere, and even the smallest movements or the smallest objects cause vibrations inside and outside our body, in order to be in perfect health our body requires a harmony of vibrations generated by the rhythm of our breath. In brief, soundwaves, accompanied by rhythm, are all around; therefore, it is easy to understand how strong the force of sound with its rhythm is to heal a suffering body. Breath regulates the rhythm of our blood circulation, the beating of our heart, the rhythm of the pulse and of any smallest part of our body. It is worth restating that when breath loses its rhythm it requires medical treatment to restore a perfect harmony. Hazrat Inayat Khan articulates this notion in the following way:

> "The vibration which is necessary for our health is created in the body by their power (medicines). The rhythm which is necessary for our cure is brought about by bringing the circulation of the blood into a certain rhythm and speed. By this we learn that health is a condition of perfect rhythm and tone. And what is music? Music is rhythm and tone. When the health is out of order, it means the music is out of order." (Hazrat Inayat Khan 1921).

Even though in the context of Islamic civilization, in the Medieval era, physicians recognized the high value of music therapy, however, music therapy was never used as the only treatment for various illnesses, and above all for the insane. Rather, it was associated with medications. Dance, songs, *al-Qur'ān* recitation (تجويد *tajwīd*), the calling for prayer (أذان adhān) from a nearby mosque, listening to stories, as well as to the melody of the jets of water fountains, and even watching comedies, were all features viewed as complementary treatments to restore health in the body, in the mind and in the soul. In doing so, stress was reduced, and symptoms were soothed, since the person's attention, distracted from pain, could calm down.

In brief, according to Ibn Sīnā and the Ikhwān al-Ṣafā', music helped in healing since it: 1) relieves pain while entertaining, and 2) strengthens the antibodies to diseases. Ibn Sīnā and the Ikhwān al-Ṣafā' combined the sound of voice (storytellers and singers), the sound of music (melodies) helped by instruments like the pipe, the lute, the *ud,* and the reed-flute, with the sound of water and the singing of birds, with massage and aromatic baths (Ibn Sīnā *Book of Healing*), so to stimulate the soul, and to enhance emotions and aesthetics, too. Sufis associate each instrument with the soul, so they say that

> "Wind instruments, like the flute and the *algosa* (a double flute), express the heart quality, for they are played with the breath which is the very life; "749. … motion is the sign of life, and when accompanied with music it sets both the performer and onlooker in motion. … Among Sufi in the East, dancing takes place at their sacred meetings called Sama'761… vocal music is considered to be the highest, for it is natural; the effect produced by an instrument which is merely a machine cannot be compared with that of the human voice." (Hazrat Inayat Khan, 1921)

Under this perspective, the cantillation of *al-Qur'ān* was an important part of music therapy. The aim was to help the patient to achieve a certain harmony not only within himself/herself, but also with God, because in the Islamic context religion has

always occupied a high role. Music therapy was also specifically applied to cure some mental disorders such as melancholia, insomnia, and lovesickness. In the *Qānūn,* Ibn Sīnā says that the rhythm of *al-hazaj* and *al-thaqil*, combined with bath therapy, recreation, rubbing milk on the head, etc. are extremely useful. Of course, in order to apply this advanced therapy, the hospitals, called Bīmāristāns, had a very sophisticated architecture. They were exceptionally large palaces, with beautiful gardens and many fountains, with specific rooms equipped to gather musicians, dancers, singers and *qurrā'* (قُرَّاء) who were engaged regularly to play their music and to recite the *Qur'ān* with melodious voices according to the rules of *tajwid*, thus creating a relaxing and peaceful atmosphere. In essence, music therapy was applied to all patients either mental or physical.

The most important Bīmāristāns were: in Morocco Bīmārīstān Fez, in Cairo Bīmāristān al-Mansuri, in Aleppo Bīmāristān al-Arghuni, in Damascus Bīmāristān Nur al-Din, in Istanbul Fatih Darussifas, and many other. They all shared the same characteristics both in their organization and in their architecture, so that, nowadays, because of their sophisticated architecture, some of them have been turned into museums.

Music Therapy in the West

With regret, we must admit that, despite positive experiences of music therapy in the Islamic world at the time of Ibn Sīnā, as well as in the West nowadays, at present, music therapy has not yet officially entered hospital organizations. We find it only in some paediatric private institutions, where music is used to relieve children's physical pains. In combination with specific musical modes for the young, a group of clowns attracts attention with sketches whose aim is to involve children to participate actively even suggesting new songs to the actors. They are also asked to draw and colour whatever they like, stimulated by some shows. On these occasions parents are invited, thus sustaining and motivating their children, especially the very shy ones. Here, in Italy, music therapy is not yet formally included in medical programs either for physical diseases or for the insane, but in Napoli the children's hospital Santobono, often organizes clowns' shows. The Cotugno and Monaldi Hospitals play *Ave Maria* by Gounod at 12 o' clock every day. That sound spreads a pleasant harmony which gives a sense of peace to the patients and their visitors. Music therapy is sometimes applied only in private departments for elderly people and for pregnant women Occasionally, music and theatrical performances enter jails together with theatrical performances, in which people with mental health problems are actors in the play.

In the United States, the American Music Therapy Association (AMTA) defines Music therapy as "The clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program." (AMTA) However, according to the information provided by the AMTA, music therapy has not yet entered formally any governmental health program. Despite music therapy has revealed positive results, it has not yet received much attention in hospitals. However, the scientific research in this field is very active, and neuro-imaging, too, helps to

establish how the brain reacts to the stimuli received by music. The brain is observed under various situations concerning either general sounds or music input in order to control how the different areas of the brain react, and to visualize the areas involved.[16]

Some theories (Poeppel 2003) establish that "perception of the rapid but spectrally coarse timbral contrasts of speech relies more on the left hemisphere circuits, whereas analysis of slower but more spectrally refined pitch contrasts of music relies more on the right hemisphere circuit." (Patel 2008). There are many scientists who argue that music is especially important from an early age in order to stimulate cognition and behaviour during childhood. Furthermore, music provides: 1) to slow down the aging process in general, and Alzheimer's in particular; 2) to alleviate and enhance cooperation and social aggregation in autistic and Williams Syndrome children; 3) to activate the mind, and 4) to maintain the body in good health because it increases physical movements (gymnastic and dance). Neuroscientists study how music enhances and provokes feelings, which have influential effects on the brain, by stimulating and correlating areas which, in the past, were viewed as separate.

> "Recent developments in brain research and the neurobiology of music are altering concepts of music therapy. As the neurological basis of music and the effect of music on brain plasticity are better understood, a new scientific framework for the rationale of music in therapy is emerging. It is now clear that music can influence, shape, and educate cognitive, affective, and sensorimotor processes in the brain that can also be transferred and generalized to non-musical brain functions within a therapeutic model:… Music may be described as an aesthetic, sensory-based language consisting of spectrally and temporally highly complex auditory patterns that perceptually engages cognitive, emotional, and motor functions in the brain." (Thaut and Wheeler 2011).

In music psychotherapy, the focus is on emotion, as well as cognitive or physical functioning, since music activates motion, and so it is important to acquire and develop rhythm and time.

> "One remarkable and often-noted property of music is its ability to evoke a sense of motion in a listener. One example of this is our tendency to synchronize to a musical beat, a response that appears to be uniquely human." (Patel 2008).

> "Playing music exercises attention and memory. And, like any other skill, exercise leads to improvement. Thus, it is reasonable to express that music playing might be an exercise that would strengthen these cognitive abilities.104. … Therapists have long used our capacity to perceive sound patterns to strengthen communication skills. They rely on rhythm and the concepts of entrainment to a beat, violations of a beat, and pattern recognition as core features of their protocols, reminiscent of the scene in the Colin Firth film *The King's speech*, where George VI overcame a stuttering problem by rhythmically singing his words. Rhythm-based therapy has a growing status in recovery from concussion and other brain injuries, addressing both cognitive and emotional health. … to pace walking in individuals with movement disorders such as Parkinson's disease…. Other disorders that involve movement, such as aphasia, stuttering, difficulty with respiration, swallowing, and speaking, respond to music therapy. 122 … Physical training

[16]In other words, the association of music and language in the brain. Cf. Marin and Perry-1999, Patel also discusses how language and music share common neural substrates (Patel 2008).

> has positive effects on sound processing and contributes to overall brain health." 253 (Kraus 2022).
>
> "… while music can affect all of us – calm us, animate us, comfort us, thrill us, or serve to organize and synchronize us at work or play – it may be especially powerful and have a great therapeutic potential for patients with a variety of neurological conditions." (Sacks 2007).
>
> "When used in therapy, music can evoke positive emotional responses, help manage stress, eliminate agitated mood swings, and help with cognitive and motor functions." (Saunders 2017).

At last, in order to enhance music therapy, we focus on Herbert Spencer, who recognized a positive influence of music on the mind and the body. His definition seems belonging to the present idea of music therapy: "In primitive conditions music is, first of all, a social diversion or play, affording an outlet for surplus animal spirit, stimulating emotional excitement, and helping to maintain muscular and nervous energy. Singing and dancing are always conspicuously social – a center of interest for perhaps a whole village or tribe." (Spencer 1890).

Conclusions

In conclusion, having added to the diachronic analysis, also personal experiments with children and adults in school context and private institutions, as attested in my previous articles, music seems to enlarge its importance during the whole of our life.[17] In fact, music stimulates our senses, and the movements of our body, too, because it enhances blood circulation by providing oxygen to the brain.

Experiments developed with school children (from 7 to 13 years old), and with adults (with and without age problems) have revealed the importance of music and of music therapy to help people from many different directions as attested by the former studies in this field. In fact, the question about the origin, the value of music, and its use, has puzzled scholars for centuries, and it is still a considerable field of research.

Music is useful with young children, because it activates the cerebral areas as well as the nerves and the muscles of the body by strengthening them, so a child will be able to improve, at first, how to hold a pencil, then a pen, then a ball, then may be how to hold a violin or how to move fingers on a piano. It is a great resource for children's cognitive growth as an educational aid. It is useful for old population, because it alleviates and fulfils the long days with its melodies, which sometimes cancel sadness and troubles. In addition, for adults, music stimulates new synapses replacing the loss of neurons.

We have seen that the Arabs, who could appreciate the sound of music through

[17]D'Acierno Canonici Cammino M.R., Come aiutiamo il nostro corpo, la nostra mente e la nostra voce ad adeguarsi a tutti i tipi di cambiamento sociale ed intimo, in *Psicologia Fenomenologica*, 15-11, 2023. La Sindrome di Williams tra fonetica sperimentale, lingua straniera e musica. Studio su un soggetto bilingue. In *Il parlante e la sua lingua* (a cura di D. Locchi) Atti A.I.A.13-15 dicembre 1999 Istituto Universitario Orientale, Napoli, Vol. xxvii. The inter-relationship between language, music and movement: pattern learning, in *Athens Journal of Sports*, 2 (1), I 2015: 17-30.

poetry, and then, through the cantillation of the Qur'ān,[18] soon realized the force of music in conjunction with the sound and the vibrations of the human body. They tried to establish a musical theory based on the observation of the physical world and on mathematics, and decided that, for its emotional, communicative and aggregational role, music could enter the world of medical care. At the beginning, the East had two schools of medicine: one coming from Greece through Persia, the other from the Vedanta based on mysticism whose founding principle was to achieve harmony by controlling breath vibrations. For this reason, during the centuries, step by step, vibrations have been acquiring communicative features while turning into both speech and music.

Language (speech) and music (sound) share structural similarities (pitch, duration, timbre, intensity, accent, rhythm, and inflection patterns). Physical vibrations are transduced inside our hearing apparatus into electrochemical information that goes, through the neural relays of the auditory system, into the brain. Both language and music have a social and an intimate role, but, while language has acquired different features concerning the context in which it developed, music has added to its cultural traits universal meaning, too; thus, enhancing a wider sense of unity and participation. Rhythm, as Hazrat Inayat Khan claims, controls life in every direction, making it the most important means of improving human life. Language and music are inborn human faculties in which, according to Steven Pinker, both genes and environment play a role. (Hazrat Inayat Khan 1923, cf. Pinker 2002).

In conclusion, the debate about who invented music, has to concentrate on music as part of our life, because it comes from the essence of the physical world (the celestial sounds) and the essence of our body (the sound of our blood circulation). In brief, music is an internal sound that comes out in the form of melodies or songs to reinforce body, mind, and spirit.

In order to emphasize the relevant role music has to alleviate our sorrow and to open our soul hoping for a better future, it will be useful to read Francesco Lotoro's book about the music within the Nazi concentration camps. After more than twenty years of research, he has found impressive documents about the music played, written and sung by those people who did not even have the strength to stand, because of their physical decline. Among the prisoners were also musicians, who wrote their music as a symbol of revolt and hope; a symbol that intensifies the deep role of music.[19]

Music didactic purpose comes clear from Mesopotamian bas-relieves, in which important social and religious ceremonies were always enhanced by music. Even funeral laments acquired a spiritual and metaphysical character in that society. Music had a prime role, when celebrating a victory after a war. The Ur Standard (2500 b. C.) depicts a singer and a zither player performing during a royal meeting. The Sumerians were the first people to form small orchestras with harps, flutes and drums. Since the iconographies related to this era show women and children playing and singing in these orchestras, it means that for those peoples, music had also a pedagogical role.

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[18]"… the religions authorities considered the permitted forms of cantillation and folk songs as 'non-music', contrasting with *ghina*" (Shiloah 2007).

[19]Lotoro Francesco (Barletta 1964) is a pianist, composer and conductor. "Fare musica ha conferito un senso all'ingegno di chi nei Campi ha lasciato la propria vita, … Nel Lager i canti servirono a uno scopo per noi rivoluzionario. Ci incoraggiavano a continuare la nostra lotta per vivere e trovare la via della salvezza." (2022, 4).

Nowadays, future medicine may benefit from both ancient practices and advanced technical instruments. As the following report attests, music therapy is increasing in use and application.

The Music Therapy Global Market Report 2025 has calculated that music therapy market reached $3.16 billion in 2024, and is expected to reach $5.91 billion by 2029.

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The Impact of Suprasegmental Instruction on L2 English Comprehensibility and Accentedness: A Study with Argentinean Pre-Service Teachers and Brazilian Raters

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The teaching of L2 pronunciation has gained renewed prominence in Applied Linguistics, with key constructs such as intelligibility, comprehensibility, and accentedness, playing an increasingly central role in both pedagogical practices and research agendas. In this context, the present classroom-based study evaluated the efficacy of a short pronunciation workshop focused on suprasegmentals, delivered by advanced trainee teachers to Argentinean learners of English. The Argentinean students completed picture description tasks before and after instruction, and their recordings were evaluated by ten Brazilian graduates of an English Teacher Training Program. These Brazilian listeners rated each sample using 9-point Likert scales for comprehensibility and accentedness, and later identified linguistic features they believed influenced their judgments. Although overall improvements in perceptual ratings were limited, meaningful patterns emerged: segmental accuracy and pausing were consistently identified as key factors shaping listener perception. The findings suggested that the listeners' background and limited training in suprasegmentals may have led to a focus on segmental cues during evaluation. While immediate gains were not uniformly observed, the workshop offered valuable pedagogical experience for both trainee teachers and learners. The study highlighted the importance of integrating segmental and suprasegmental instruction and concluded with several recommendations and suggestions for improving L2 pronunciation pedagogy and future research.

Keywords: *accentedness, assessment, comprehensibility, L2 pronunciation teaching*

Introduction

For a long time, L2 pronunciation has played a marginal role in foreign language teaching. Many English teachers often report prioritizing institutionally mandated content such as grammar and vocabulary, leaving pronunciation instruction largely overlooked. They frequently argue that pronunciation is a particularly complex area to address due to the intangible and elusive nature of speech features (García Jurado and Arenas 2005). In addition, many educators feel underprepared, lacking the explicit knowledge and methodological training needed to teach pronunciation effectively (Derwing and Munro 2013). Time constraints and limited access to suitable didactic resources further hinder its inclusion. Most commercial textbooks provide minimal pronunciation practice, and when they do, they tend to focus narrowly on segmental

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aspects (Silveira 2002). These factors together help explain why pronunciation often remains peripheral in the language classroom.

In response to the growing recognition of the role of pronunciation in communicative competence, this study sought to evaluate the impact of a short-term suprasegmental-focused workshop on Argentinean learners of English. The instruction was delivered by advanced trainee teachers, and its effectiveness was assessed through perceptual judgments provided by Brazilian graduates in English language teaching. Specifically, the study examined whether the workshop had a measurable effect on learners' comprehensibility and accentedness, and which linguistic features most influenced listener perception. The study also explored the pedagogical implications for both pronunciation instruction and the training of future teachers.

This article is organized into six sections. Following the introduction, the literature review outlines key concepts and recent developments in L2 pronunciation research. The methodology section presents the classroom context, participants, data collection instruments, and procedures. The results section reports the quantitative and qualitative findings from listener evaluations. The discussion interprets these results in light of relevant theories, including insights from Complex Dynamic Systems Theory and metalinguistic awareness. The paper concludes by summarizing key findings, offering pedagogical recommendations, and suggesting directions for future research in pronunciation teaching and listener-speaker interaction

Background

Rethinking Pronunciation Goals in a globalized World

Over the past decade, driven largely by the effects of globalization and the increasing demand for a shared means of international communication, L2 pronunciation instruction has gained renewed prominence in the field of Applied Linguistics (Derwing and Munro 2015; Levis 2018). This resurgence can be traced back to Levis' (2005) influential article, in which he articulated two opposing principles that have shaped the pedagogical direction of pronunciation teaching: The Nativeness and the Intelligibility Principles. The Nativeness Principle is grounded in the traditional belief that the goal of pronunciation instruction should be native-like speech, with minimal to no trace of the learner's first language (L1) features. In contrast, the Intelligibility Principle advocates for a more functional approach, asserting that L2 learners need only be understandable to their interlocutors. This view accepts the presence of L1-influenced features in L2 speech, so long as they do not interfere with communicative clarity. Contemporary research increasingly supports intelligibility as a more realistic and equitable instructional goal, especially in multilingual settings where English functions as a lingua franca (Levis 2020; Tergujeff 2021; Saito et al. 2022; Saito and Akiyama 2023; Thomson and Derwing 2021).

Research, Practice and Pedagogical Impact

Today, L2 pronunciation teaching and research occupy a prominent space in international academic forums, with numerous conferences, symposia, and special interest groups dedicated exclusively to this area. Events such as the *Pronunciation in Second Language Learning and Teaching (PSLLT)* conference and the activities of the *IATEFL Pronunciation Special Interest Group (PronSIG)* reflect the growing global engagement with pronunciation pedagogy and research. Parallel to this increased scholarly attention, a substantial body of high-quality empirical studies continues to highlight the pivotal role of pronunciation instruction in enhancing L2 learners' speech intelligibility, a core dimension of successful oral communication (Derwing et al. 2014; Isaacs and Trofimovich 2012; Lee et al. 2015; Saito 2011; Saito and Akiyama 2023; Thomson and Derwing 2015; Trofimovich et al. 2012; Zhang and Yuan 2022; Zimmer et al. 2008). These studies provide compelling evidence that targeted pronunciation instruction, particularly when integrated into communicative contexts, can significantly improve learners' ability to be understood by diverse interlocutors, thereby facilitating more effective international and intercultural communication (Baker 2012).

Teacher Beliefs and Practices in EFL Pronunciation: Local Realities and Global Trends

Buss (2016) points out that in Brazil, for example, the teaching and learning of English pronunciation have regained marked interest in recent years. However, this Brazilian researcher highlights the importance of determining if this interest has influenced, in any way, the professional development of teachers. In her study, she explored the beliefs and practices of a group of 60 Brazilian English teachers in the context of teaching EFL. Findings from online surveys indicate that EFL teachers generally hold positive attitudes toward the teaching of English pronunciation and recognize its importance in language instruction. However, many reported relying on traditional, form-focused techniques, such as mechanical repetition and the isolated practice of individual sounds at the word level. These approaches, while familiar, are often disconnected from real-world communicative contexts and fail to address suprasegmental features like stress, rhythm, and intonation.

Consistent with findings from other international studies in similar EFL contexts, teachers highlight the pressing need for more systematic and up-to-date professional development opportunities focused specifically on pronunciation pedagogy (Baker 2014; Couper 2017; Foote et al. 2011; Foote et al. 2016). In line with this trend, Luchini (2005) and Luchini and Chiusano (2009) advocate for a task-based and communicative approach to pronunciation instruction in Argentinian EFL settings, showing that such methods can enhance learners' intelligibility. Similarly, Zimmer et al. (2008), working in the Brazilian context, stress the importance of integrating explicit and practical pronunciation training tailored to learners' linguistic backgrounds. Their work, alongside other contributions with focusing on the Brazilian pronunciation teaching scenario (Alves 2015; 2021; Alves and Albuquerque 2023; De los Santos and Alves 2022; Kupske and Alves 2017; Lima Jr. and Alves 2019; Machry da Silva et al. 2024; Perozzo and Alves 2023), reinforces the global call for

pedagogically sound, context-sensitive approaches to pronunciation teaching in foreign language classrooms.

Shifting Pedagogical Goals and measuring Impact

In communicatively-oriented L2 teaching contexts, where the Intelligibility Principle is prioritized as a core pedagogical goal (Levis 2005; 2018), intelligibility emerges as a central construct in pronunciation instruction. This focus aligns with the growing consensus in the field that intelligibility, rather than native-like accuracy, should be the primary target of instruction (Darcy and Rocca 2022; Derwing and Munro 2015; Gordon and Darcy 2019; Levis 2005; Saito and Akiyama 2023). Munro and Derwing (1995) define intelligibility as the extent to which a listener actually understands L2 speech, while comprehensibility refers to the listener's perception of how effortful or easy the speech is to understand (Derwing and Munro 1997). As early as the mid-20th century, Abercrombie (1949, p. 120) asserted that "language learners need no more than a comfortably intelligible pronunciation," a view echoed by scholars such as Gilbert (1980), Pennington and Richards (1986), Crawford (1987), and Morley (1991), who emphasized the pedagogical importance of intelligibility, even as they lamented the scarcity of empirical research to support its instruction. This lack of clarity may partly explain why many teachers remain uncertain about what aspects of pronunciation are teachable, learnable, or even desirable in an L2 classroom.

Consequently, studies that evaluate the effectiveness of pronunciation instruction—and its influence on learners' intelligibility and comprehensibility—are both timely and necessary (Thomson and Derwing 2015; Saito et al. 2022). The present study seeks to address this gap by evaluating the outcomes of a pronunciation workshop focused on suprasegmental features. The workshop was taught by advanced pre-service teachers from an English Teacher Training Program at a public university in Argentina and assessed by a group of ten Brazilian L1 teachers of English residing in Brazil, using measures of comprehensibility and accentedness as evaluative benchmarks.

Understanding Comprehensibility and accentedness

Comprehensibility is defined as the extent to which listeners perceive L2 speech as easy or difficult to understand. This construct is typically measured through listener judgments using Likert-type scales, often ranging from 1 (very difficult to understand) to 9 (very easy to understand) (Munro and Derwing 1995; Derwing and Munro 1997). Another commonly studied construct is accentedness, which refers to the perceived degree of deviation from native-like pronunciation, based on differences in phonetic and prosodic features (Derwing and Munro, 2015).

Comprehensibility may be said to align more closely with the Intelligibility Principle, which emphasizes successful communication and mutual understanding as instructional priorities. Conversely, accentedness appears to be more in line with the Nativeness Principle, as it tends to reflect listeners' perceptions of how much an L2 speaker's pronunciation is influenced by their L1 (Crowther et al. 2017). These associations, however, should be interpreted with caution, as they are not rigid and may vary depending on contextual, linguistic, and sociolinguistic factors.

Recent research increasingly supports the pedagogical value of targeting comprehensibility in pronunciation instruction, particularly in global and EFL contexts where intelligibility is a more realistic and inclusive instructional goal (Saito and Akiyama 2023). Lev-Ari and Keysar (2010) argue that native listeners often perceive L2-accented speech as less credible and accurate, particularly when a noticeable foreign accent is present. They attribute this tendency not to the actual content of the speech, but to limitations in the listener's perceptual processing.

Drawing on earlier work by Derwing and Munro (1997) and Oppenheimer (2008), this process is described as the subjective experience of how easy or difficult it is for individuals to process information when engaged in a cognitive task. This ease, or processing fluency, can significantly influence how information is judged. Research shows that information which is easier to process is often perceived as more truthful, salient, and aesthetically pleasing than information that requires greater cognitive effort (Reber and Schwarz 1999; Whittlesea 1993). In the context of L2 speech, this means that reduced processing fluency may lead to negative evaluations, contributing to biased perceptions of foreign-accented speakers.

Given these implications, it becomes essential to identify which linguistic dimensions of L2 speech hinder processing fluency and thereby contribute to diminished comprehensibility and increased perceptions of accentedness. In this regard, Trofimovich and Isaacs (2012) emphasize the importance of disentangling comprehensibility from foreign accent. Doing so allows for a more detailed and fair assessment of L2 speech, especially in contexts where intelligibility is the primary communicative goal. This approach also helps challenge persistent assumptions -such as the belief that less comprehensible speech is inherently less trustworthy or competent than speech perceived as accent-free (Lippi-Green 1997), thereby contributing to more equitable evaluations of bilingual speakers.

Listener Perception and the Complexity of assessing accented Speech

Munro and Derwing (1995) and Derwing and Munro (1997) define accentedness as the perceived degree of deviation in a speaker's pronunciation compared to that of a listener, typically a native speaker, based on differences in segmental and suprasegmental features such as vowel quality, intonation, and rhythm. While accentedness is often salient to listeners, it does not necessarily hinder understanding. Research has shown that accentedness is partially independent of intelligibility and comprehensibility, meaning that speech may be heavily accented yet still easily understood (Trofimovich and Isaacs 2012). Indeed, it is often difficulties in comprehensibility -not accent itself- that interfere with successful communication (Derwing and Munro 2009; 2015; Saito 2021).

Defining the characteristics of a foreign accent remains a complex endeavor, involving interrelated physiological, acoustic, and perceptual dimensions. Studies have explored the influence of multiple phonetic variables, including coarticulation, prosodic contours, pausing, voice quality, pitch range, speech rate, and stress placement, all of which may contribute to listeners' perceptions of accentedness (Isaacs and Trofimovich 2012; Isbell et al. 2024; Kang 2010; Zhang and Yuan 2022). These features interact with cognitive and social factors, such as processing fluency

and listener expectations, which can shape how speech is evaluated (Lev-Ari and Keysar 2010; Gluszek and Dovidio 2010).

Much of the research in this area has relied on native English speakers as raters, who evaluate non-native speech using Likert-type scales to judge accentedness and comprehensibility (Munro and Derwing 2001). While this has yielded valuable insights, the present study adopts a different approach: the listeners serving as assessors are not native speakers of English, but rather Brazilian L1 teachers of English. This decision reflects an effort to mirror real-world communicative settings more accurately -where English is frequently used as a lingua franca among non-native speakers- and to capture how L2 speech is perceived by those who interact with it in everyday professional and academic contexts (Saito et al. 2022; Kiczkowiak and Lowe 2019).

Bridging Research and Pedagogy in L2 Pronunciation

Effective communication in a second language requires flexibility from both speakers and listeners in real-time phonological encoding and decoding. In this interactive process, L2 pronunciation teachers play a critical role by selecting phonetic and phonological features that most significantly contribute to communicative success. The challenge, however, lies in determining which features should be prioritized for instruction.

More than two decades ago, Levis (1999) identified a disconnect between pronunciation research and teaching practice: a gap that, despite progress, still persists. While the field now includes a substantial body of research, relatively few studies directly address which phonological elements should be emphasized to improve comprehensibility (Derwing et al. 2012; Derwing and Munro 2015; Saito and Hanzawa 2016; Foote et al. 2016) or reduce accentedness (Crowther et al. 2017; Isaacs and Trofimovich 2012).

Recent efforts have attempted to bridge this gap by integrating research findings into pedagogical frameworks (Derwing and Munro 2015; Saito 2020). Instructional models now increasingly promote phonological awareness through explicit, form-focused activities rather than relying solely on immersive exposure. Studies by Sardegna and Lee (2018), Couper (2003; 2006; 2017), and Burri (2015) demonstrate that targeted instruction, especially when directed at features linked to intelligibility, leads to significant improvements in L2 pronunciation outcomes.

A growing body of research has also identified specific phonological features that are both teachable and communicatively relevant. These include segmental aspects and suprasegmental features such as word stress, rhythm, intonation, and vowel reduction (Derwing et al. 1997; 1998; Saito 2011; Ketabi and Saeb 2015; MacDonald et al. 1994). These findings emphasize the need for evidence-based instructional decisions that reflect the communicative value of specific features rather than traditional or intuitive choices.

Empirical evidence further suggests that suprasegmental accuracy plays a particularly influential role in shaping listener judgments. For example, Isaacs and Thomson (2020) found that while segmental errors were moderately related to perceptions of accentedness and comprehensibility, suprasegmental features such as stress, rhythm, and intonation had a stronger overall impact. These results align with prior studies highlighting the prominence of prosody in speech perception (Cutler and

Clifton 1984; Field 2005; Hahn 2004; Derwing and Munro 2015; Saito and Shintani 2016).

Accordingly, if the instructional goal is to enhance comprehensibility and reduce perceived foreign accent, prosodic features should take precedence in pronunciation instruction (Celce-Murcia et al. 1996, 2010; Derwing and Rossiter, 2003; Gilbert 1993; Pennington and Richards 1986). Teachers should focus on phonological dimensions that most affect listener perception, especially those that may hinder intelligibility or heighten perceived accentedness (Derwing and Munro 2013; Derwing et al. 2009; Saito and Shintani 2016).

The reciprocal relationship between research and pedagogy remains essential. Ongoing empirical inquiry is needed to determine which phonological features most influence listener judgments and how instruction can effectively enhance comprehensibility and attenuate perceived accent. Learners from diverse L1 backgrounds encounter a range of pronunciation challenges, and teachers must make informed instructional decisions to support students' spoken development in varied EFL contexts.

In line with global communication practices, recent studies have increasingly employed non-native listeners to assess L2 pronunciation, particularly in contexts where both speakers and raters are non-native users of English (Ludwig & Mora, 2017; Munro et al., 2006; Rossiter, 2009; Trein et al. 2022, 2024). These approaches reflect the realities of English as a lingua franca and call attention to the importance of studying pronunciation in authentic, non-native interactional settings. Similarly, the present classroom-based study was conducted with non-native speakers and listeners, aiming to replicate real-world EFL communicative scenarios.

Delimitation of the Research Area

This classroom-based study aims to explore the relationship between suprasegmental instruction and listener perception in an EFL context. Specifically, it investigates the impact of targeted L2 pronunciation instruction on learners' speech production and how it is evaluated by non-native listeners. The study addresses the following research questions:

1. To what extent did formal instruction in suprasegmental features affect the comprehensibility and perceived accentedness of Argentinean students' L2 speech, as rated by Brazilian L1 English teachers?
2. Which specific linguistic features in the Argentinean students' L2 speech most strongly hindered comprehensibility and contributed to the perception of a foreign accent among the Brazilian listeners?

Method

Context

This classroom-based study was conducted within the framework of an L2 pronunciation workshop at a public university in Argentina. The workshop was delivered by three advanced pre-service teachers under the supervision of an experienced pronunciation instructor. Its primary aim was to introduce students to key aspects of English suprasegmentals, including word, sentence and nuclear stress, rhythm, and intonation, with a focus on distinguishing between simple (falling/ rising) and compound (fall-rise/rise-fall) tones. The workshop served as a preparatory experience prior to the core pronunciation course taught in the second year of the TEFL (Teaching English as a Foreign Language) program, which follows an initial segmental phonology course. The workshop spanned three weeks and included six two-hour sessions held twice weekly.

Task Design and Data Collection Procedure

The Argentinean students completed a picture description task individually for both the pre- and post-tests, recorded before and after the instructional period. To minimize familiarity and task repetition effects, two different sets of images, each showing people engaged in everyday activities, were used. Although using different prompts may introduce some variability, this approach was preferred over using identical stimuli, especially considering the short three-week interval between tests. Repeating the same task within such a timeframe could have produced gains attributable to practice rather than instruction. As Bygate (2001) originally observed, task repetition often improves accuracy, fluency, and complexity by allowing learners to shift attention to linguistic form. More recent research supports this view, showing that task repetition, depending on timing and context, can enhance narrative fluency (Bui, 2023), promote the retention of technical vocabulary in listening tasks (Ma, 2023), and increase self-efficacy and motivation in L2 writing contexts (Teng, 2024). In light of these findings, using different picture sets in the pre- and post-tests helped isolate instructional effects on comprehensibility and accentedness from potential repetition-related gains. Students were given 30 seconds to examine the images and 60 to 90 seconds to describe them. All recordings were conducted in quiet university classrooms. In line with ethical research guidelines, all participating students signed informed consent forms prior to data collection, voluntarily agreeing to take part in the study.

Participants' Profile and Background

Initially, twelve students enrolled in the workshop. Following the first week, four dropped out, and three were absent on the day of the post-test, leaving a final sample of five participants who completed both the instruction and testing phases. Pre- and post-tests were recorded one week before and after the workshop, respectively. Prior to data collection, participants completed a self-evaluation academic questionnaire,

indicating proficiency levels between B2 and C1, as defined by the Common European Framework of Reference for Languages (CEFR). At the time of the study, all students were in the second year of the TEFL program and had previously completed a course in Phonetics and Phonology focused on segmental features.

Assessment Procedures and Rater Reliability

Ten experienced language teachers, all graduates from a public university in Southern Brazil and M.A. candidates at this university, served as raters for the perception tasks. In addition to their academic training, all had at least two years of professional experience teaching English in local language institutes or secondary schools. As part of their undergraduate studies, they completed two semester-long courses in phonetics and phonology, which emphasized segmental features such as consonant and vowel articulation. Instruction on suprasegmentals, by contrast, was limited and not systematically reinforced through practice, a fact that was also reflected in the raters' own reports of having received little explicit training in prosody. They evaluated ten speech samples (five from the pre-test and five from the post-test) to assess comprehensibility and accentedness. The recordings were presented in randomized order within the same session to prevent any ordering effects. Comprehensibility was rated on a 9-point Likert scale, where 1 indicated considerable cognitive effort required to understand the speech, and 9 signaled ease of understanding. Accentedness was measured using the same scale, with 1 corresponding to a strong foreign accent and 9 to a native-like accent. Following the rating task, the assessors completed a brief written reflection identifying linguistic factors, such as pronunciation, grammar, vocabulary, and discourse organization, that may have influenced their judgments.

Results

Comprehensibility

As described in the Method section, comprehensibility was assessed using a 9-point Likert scale, in which 1 indicated a high degree of cognitive effort required to understand the L2 speech and 9 represented ease of understanding. Table 1 presents the individual ratings provided by the ten Brazilian listeners for the pre- and post-test recordings, reported separately.

Table 1. *Comprehensibility Rates (pre- and post-tests)*

	Pre-test	Post-test
Median	8.0	7.5
Maximum	9.0	9.0
Minimum	3.0	3.0

Note. Authors' own work

As shown in the median values in Table 1, even prior to instruction, the speech samples were rated as highly comprehensible by the Brazilian listeners. This may be partially attributed to the linguistic proximity between Portuguese and English, both of which share Latin roots. Additionally, in southern Brazil—particularly in regions bordering Uruguay and Argentina—exposure to Spanish is relatively common, potentially contributing to a degree of mutual intelligibility. Another relevant factor is that the Argentinean learners had previously received explicit instruction in segmental phonology. Notably, many of the Brazilian raters reported having received more extensive training in segmentals than suprasegmentals during their own phonetics coursework, which may have influenced their perception and contributed to the relatively high comprehensibility scores.

A comparison of descriptive statistics from the pre- and post-tests indicates a slight decrease in median comprehensibility ratings following instruction. However, a paired-samples Wilcoxon test revealed no statistically significant difference between the two testing points ($Z = -1.25$, $p = .21$). Given the lack of significance in the overall data, individual comparisons were then conducted to examine each Argentinean speaker's ratings across both tests. These results are presented in Table 2.

Table 2. *Individual Rates for Comprehensibility*

	Pre-test					**Post-Test**				
	St 1	St 2	St 3	St 4	St 5	St 1	St 2	St 3	St 4	St 5
Median	8.0	7.0	8.5	9.0	8.0	7.0	8.0	8.0	6.5	8.0
Minimum	7.0	3.0	6.0	7.0	6.0	4.0	7.0	7.0	5.0	3.0
Maximum	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0

Note. Authors' own work

Table 2 shows that all five speech samples received the highest possible comprehensibility score ('9') from at least one rater, indicating that each recording was perceived as highly comprehensible by some listeners. However, the minimum scores varied across samples, which in turn affected the median values. To examine differences in comprehensibility over time, Wilcoxon signed-rank tests were conducted for each individual speaker, comparing their pre- and post-test medians.

The analysis revealed statistically significant differences for three students: Student 1 ($Z = -2.57$, $p = .01$), Student 2 ($Z = -2.04$, $p = .04$), and Student 4 ($Z = -2.39$, $p = .017$). Notably, Student 2 showed a significant improvement from the pre- to the post-test, suggesting a positive impact of the workshop on her comprehensibility. In contrast, Students 1 and 4 exhibited significant declines in their post-test ratings. While these decreases may initially seem unexpected, potential explanations will be explored in detail in the Discussion section.

Accentedness

Listeners rated accentedness using a 9-point Likert scale, where a score of 1 indicated highly accented speech and 9 reflected native-like pronunciation. As with comprehensibility, the recordings of all five speakers were evaluated and compared across the pre- and post-tests. Descriptive results are presented in Table 3.

Table 3. *Accentedness rates (pre- and post-tests)*

	Pre-test	Post-test
Median	6.2	5.0
Minimum	2.0	2.0
Maximum	9.0	9.0

Note. Authors' own work

Accentedness ratings were generally lower than those for comprehensibility, highlighting the relative independence of the two constructs—speech may be perceived as accented yet still be considered comprehensible (Isaacs and Trofimovich 2012). A comparison of pre- and post-instruction speech samples revealed a decrease in accentedness ratings following the workshop, suggesting that listeners perceived the post-test speech as more accented. A paired-samples Wilcoxon test confirmed this difference to be statistically significant ($Z = -2.31$, $p = .021$). As with comprehensibility, individual comparisons were conducted for each of the five Argentinean speakers. These results are presented in Table 4.

Table 4. *Individual rates for accentedness*

	Pre-test					**Post-Test**				
	St 1	St 2	St 3	St 4	St 5	St 1	St 2	St 3	St 4	St 5
Median	5.5	5.5	6.5	8.0	5.5	3.0	5.5	6.0	6.5	5.5
Minimum	2.0	2.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	3.0
Maximum	7.0	8.0	8.0	9.0	7.0	7.0	8.0	8.0	9.0	8.0

Note. Authors' own work

Unlike the comprehensibility ratings, the highest accentedness scores varied more noticeably across speakers, ranging from 7 (Student 1 – pre- and post-test; Student 5 – pre-test) to 9 (Student 4 – pre- and post-test). In contrast, the minimum scores showed less variation, consistently falling between 2 and 3 across all recordings, which likely influenced the overall distributions. As shown in Table 4, none of the students demonstrated improvement in accentedness ratings following the workshop, based on descriptive statistics.

To explore potential differences at the individual level, Wilcoxon signed-rank tests were conducted for each participant. A statistically significant difference was

found only for Student 1 ($Z = -2.02$, $p < .05$), whose post-test ratings reflected a marked decrease in perceived nativeness. This suggests that, at least for Student 1, participation in the workshop may have resulted in more noticeable accented features, as perceived by the Brazilian raters.

Unpacking Listener Judgments: Linguistic Factors Shaping Perceptions of Comprehensibility and Accentedness

As outlined in the Method section, after rating each speech sample for comprehensibility and accentedness, the Brazilian participants were asked to complete a follow-up task in which they commented on linguistic factors, such as pronunciation, grammar, vocabulary, and discourse organization, that may have facilitated or hindered their evaluations. Rather than being provided with a predefined list, listeners were encouraged to draw on their own linguistic knowledge and experience to explain their perceptions. This qualitative component provided valuable insights into the patterns observed in the quantitative data.

In this section, we focus on the comments related to the pre- and post-test recordings of Student 1 and Student 2. As previously discussed, Student 1 exhibited a significant decrease in both comprehensibility and accentedness ratings, while Student 2 showed a significant improvement in comprehensibility. The results shown in Table 5 may help to illuminate potential linguistic factors underlying these contrasting outcomes.

Table 5. *Qualitative Analyses of Student 1's Productions*

	Pre-test	Post-test
Aspects mentioned in both pre- and post-tests		
Vowels produced as in Spanish	Listeners 1, 2, 5	Listeners 1, 7, 9
Fricatives not voiced	Listeners 1, 4, 9, 10	Listener 4
Too many pauses	Listeners 2, 3, 4, 7, 9, 10	Listeners 2, 6, 7
Aspects mentioned in the pre-test audio only		
Seldom use of pauses	Listener 6	
Syllable-timed rhythm	Listener 7	
Aspects mentioned in the post-test audio only		
Grammar mistakes		Listeners 1, 3
Attempts to speak fast		Listeners 1, 3
Use of light /l/ in word-final position		Listener 4
Problems with lexical choices		Listeners 4, 9

Problems with discourse organization		Listener 4
Problems with intonation		Listener 8
Mispronunciation of the retroflex		Listeners 9, 10

Note. Authors' own work

As shown, seven linguistic features were mentioned exclusively in the evaluation of the post-test audio. Several of these comments referred to segmental aspects of the learners' speech, such as the articulation of retroflex consonants and the use of light /l/ in word-final position. Additionally, listeners noted grammatical errors and inappropriate lexical choices, both of which may have negatively influenced comprehensibility ratings. Comments on the post-test also highlighted difficulties with English vowel production and the absence of voicing in syllable-initial fricatives, particularly the /z/ sound, which is not part of the Spanish (L1) phonemic inventory. These segmental and grammatical issues likely contributed to listeners' perceptions in the post-test phase.

With regard to suprasegmental features, the most frequently mentioned aspect was the use of pauses in L2 speech. Six listeners noted the presence of "too many pauses" in the pre-test recordings, while three made similar observations about the post-test. Additionally, two raters remarked on "attempts to speak fast" in the post-test samples. These comments suggest that listeners were particularly attuned to fluency-related features such as pausing and speech rate. Notably, most of the Brazilian raters reported having focused their English phonetics training on segmental features; thus, the suprasegmental elements they commented on—pauses and speech tempo—are relatively surface-level observations that do not require in-depth knowledge of prosodic phenomena.

Taken together, the raters' comments reveal three main tendencies: a predominance of references to segmental errors (e.g., vowel quality, devoicing of fricatives, retroflex articulation), recurrent mentions of grammatical and lexical issues, and more superficial observations of suprasegmentals, mostly related to pausing and speech rate. These patterns mirror the raters' limited formal training in prosody and their stronger background in segmental phonology, which likely shaped the salience of certain features over others. Importantly, the qualitative data also help to explain the divergent trajectories observed in the ratings: while Student 2 benefited from noticeable improvements in pausing that were explicitly acknowledged by the listeners, Student 1's speech attracted a higher number of negative comments about segmental and rhythmic issues, which contributed to declining comprehensibility scores. Thus, the qualitative analysis provides a richer picture of how listener background and attentional focus interact with learner performance in shaping judgments of comprehensibility and accentedness. This may explain the limited scope of suprasegmental feedback provided. In order to illustrate these patterns more concretely, Table 6 summarizes the qualitative evaluations of Student 2's production.

Table 6. *Qualitative Analyses of Student 2's IIroductions*

	Pre-test	Post-test
Aspects mentioned in both pre- and post-tests		
Vowels produced as in Spanish	Listeners 1, 7	Listeners 1, 5
Fricatives not voiced	Listeners 1, 4, 9	Listeners 1, 4, 9, 10
Grammar mistakes	Listeners 3, 4	Listener 4
Good use of pauses	Listener 2	Listeners 2, 6, 7, 8, 10
Aspects mentioned in the pre-test audio only		
Problems with lexical choices	Listeners 3, 8, 9, 10	
Too many pauses	Listeners 2, 5, 7, 9	
Problems with discourse organization	Listener 4	
Problems with intonational phrases	Listener 8	
Good vocabulary	Listener 2	
Aspects mentioned in the post-test audio only		
Mispronunciation of interdental fricatives		Listeners 7, 8, 9
Problems with intonation		Listener 3

Note. Authors' own work

As previously noted, Student 2 showed an important improvement in comprehensibility following the workshop. This is reflected in the qualitative data, where only two "problematic" aspects were mentioned exclusively in the post-test evaluation. Segmental issues related to vowel production and the absence of voicing in syllable-initial fricatives were identified in both pre- and post-test recordings. These observations suggest that listeners tend to focus on phonological features that diverge from their own developing language norms, particularly those that stand out due to cross-linguistic differences. For example, the voicing of /z/ in syllable-initial position typically poses no difficulty for Brazilian learners, as this sound is present in Brazilian Portuguese (Cristófaro-Silva 2002). Consequently, its absence in a speaker's production is more perceptually salient to Brazilian raters than it might be for others.

Recent research supports the notion that listeners' phonological background significantly influences their perception of L2 speech (Isaacs and Trofimovich 2012; Saito et al. 2022). Moreover, studies show that perceived comprehensibility gains are not always aligned with noticeable reductions in segmental errors, but may instead reflect improved prosodic or fluency-related patterns (Saito and Akiyama, 2023; Zielinski 2008).

It is worth noting that while four listeners highlighted issues with pausing in the pre-test, none reported problematic pause use in the post-test. Conversely, five listeners explicitly praised the post-test recordings for their "good use of pauses," compared to only one in the pre-test. These observations suggest that improvements in pausing patterns may have played a key role in the significant increase in Student 2's comprehensibility ratings.

The qualitative data further indicate that Brazilian listeners tended to focus on pausing as the most salient suprasegmental feature in their evaluations. This preference likely stems from the perceptual accessibility of pauses, which are easier to

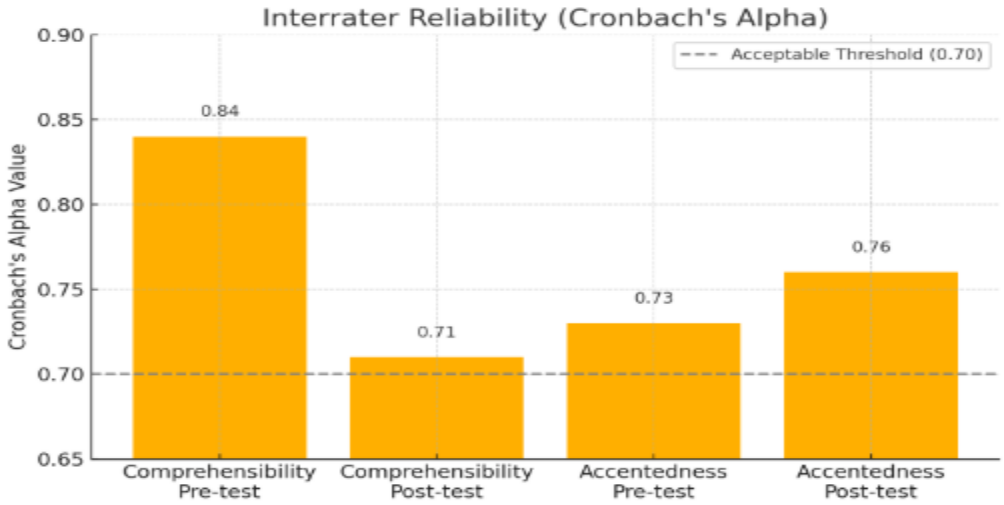
notice and describe without requiring technical phonetic terminology. In contexts where listeners, such as student-teachers or general English users, have received limited or no formal instruction in suprasegmentals, judgments of features such as pausing or speech rate may rely more on intuitive perception than on explicit phonological awareness.

Kahng (2014) supports this interpretation and shows that listeners without specialized prosodic training often base their assessments on more immediately noticeable features like pausing and speech rate, while subtler prosodic cues such as stress, rhythm or intonation may go unnoticed. This finding aligns with the present study, suggesting that a listener's instructional background notably influences which suprasegmental dimensions are prioritized during accented speech assessment.

Rater Agreement and Reliability of Perceptual Judgments

Interrater reliability was assessed using Cronbach's alpha, applying an absolute agreement model to determine the consistency of ratings across the ten non-native assessors. This statistical measure evaluates the extent to which raters produce similar scores when judging the same speech samples, thereby ensuring that the results are not influenced by individual variability in judgment. For the comprehensibility ratings, the Cronbach's alpha values were 0.84 for the pre-test and 0.71 for the post-test. For accentedness, alpha values were 0.73 (pre-test) and 0.76 (post-test). These values are all above the widely accepted threshold of 0.70, which is generally considered indicative of acceptable to high reliability in perceptual studies (George and Mallery 2003). The particularly high value of 0.84 for pre-test comprehensibility suggests a strong level of agreement among the raters at that stage, while the post-test values, though slightly lower, still reflect satisfactory consistency. Figure 1 illustrates the interrater reliability values for comprehensibility and accentedness in both pre- and post-tests.

Figure 1.



Note. Authors' own work

[a]Fig. Figure created using OriginPro (OriginLab Corporation, 2024)

The slight variations between pre- and post-test alpha values reflect natural differences in how raters perceived the speech samples after instruction, potentially due to increased linguistic variation or less uniform gains across students. Nonetheless, the overall pattern of reliability supports the conclusion that raters were internally consistent in their evaluations across both test phases. These findings lend credibility to the perceptual data collected in this study. Given the subjective nature of comprehensibility and accentedness judgments, the establishment of reliable interrater agreement is essential to validate the results. The consistency observed here confirms that the assessments made by the non-native listeners can be considered dependable for subsequent analysis and interpretation.

Discussing and Interpreting Comprehensibility ratings through Cognitive and Developmental Lenses

Analysis of the comprehensibility data revealed that, although no overall improvement was observed across all speakers, distinct individual trends emerged. Two students showed a statistically significant decrease in their comprehensibility ratings, while one exhibited a significant increase. These patterns suggest two possible developmental trajectories. In the case of those whose scores declined, it is plausible that the explicit instruction received triggered a cognitive restructuring process, whereby learners were actively attempting to internalize and reorganize new linguistic patterns. As noted by Wremble (2007), such temporary destabilization is common in L2 development and may precede long-term gains as learners work toward more stable and accurate L2 productions.

This interpretation aligns with both Ellis's (1993, 2008) cognitive-interactionist perspective, as well as De Bot, Lowie and Verspoor (2007) and Larsen-Freeman and Cameron's (2008) Complex Dynamic Systems Theory (CDST). Ellis emphasizes that the introduction of explicit knowledge often increases cognitive load, resulting in a temporary decline in performance as learners attempt to integrate new forms. CDST similarly frames language development as a non-linear, dynamic process marked by variability, instability, and transitional phases (De Bot, 2015; Verspoor et al., 2021). From this perspective, the observed declines may reflect necessary moments of disorganization that precede the emergence of more stable and complex L2 systems. Such variability may also reflect task-related constraints, as research has shown that increased task complexity can reduce comprehensibility and heighten perceptions of accentedness (Mora-Plaza et al. 2024).

Beyond developmental dynamics, several contextual and pedagogical factors may also help explain the limited overall improvement and the declines observed in certain learners' scores. First, the short duration of the workshop — only three weeks — may have constrained opportunities for students to consolidate new suprasegmental patterns and transfer them into production. Second, because the sessions were delivered by trainee teachers, the input models might not have been sufficiently robust or consistent to promote noticeable gains, as teacher expertise has been shown to strongly influence pronunciation outcomes (Levis et al. 2016). Third, individual differences in learning styles and strategy use could have played a role:

while some learners appeared to respond positively to explicit prosodic instruction, others may have struggled to integrate new knowledge into their developing language systems. Finally, the shared L1 context between teachers and students may have fostered smoother communication but plausibly reduced exposure to the kind of phonological variation that supports international intelligibility (Moghaddam 2012). These considerations suggest that instructional, learner-related, and contextual variables, in addition to rater background, might all have contributed to the mixed results observed in this study. These insights contribute to addressing Research Question 1, as they help interpret how suprasegmental instruction may have impacted learners' comprehensibility outcomes.

Listener feedback further revealed that pausing played a significant role in perceived comprehensibility. While excessive or poorly timed pauses were frequently noted in the pre-test, several listeners praised the post-test recordings -especially those of Student 2- for a more effective use of pauses. This change may reflect an increase in learners' metalinguistic awareness following the instructional intervention. According to Ellis (2008) and Roehr-Brackin (2018), metalinguistic awareness enables learners to reflect on and regulate their language use, particularly in contexts involving explicit instruction. However, during early stages of internalizing new forms, this awareness can lead to finely tuned self-monitoring, which may disrupt fluency and result in hesitations or over-cautious delivery.

Therefore, the increased pausing observed in some post-test performances should not necessarily be interpreted as a decline in ability. Rather, it may represent a transitional phase, an intermediate state between declarative knowledge and procedural fluency, where learners are in the process of integrating explicit instruction into their spontaneous speech production. These findings emphasize the importance of considering cognitive and developmental dynamics when evaluating short-term changes in L2 comprehensibility.

It is important to consider that the Brazilian listeners in this study had limited formal training in English prosody at the time of the evaluations. In the absence of explicit knowledge of suprasegmental features, such as stress, rhythm and intonation, listeners may rely more heavily on segmental cues and surface-level prosodic features, particularly those that are perceptually salient and cognitively accessible (Isaacs and Trofimovich 2012; Kang 2010). In this context, pausing, especially its frequency and placement, appeared to play a prominent role in shaping their perceptions of L2 speech. This point begins to address Research Question 2 by identifying the specific linguistic features (e.g., pausing, segmental accuracy) that influenced comprehensibility and accentedness judgments.

Pauses are closely linked to syntactic and discourse organization and can be detected without specialized phonological training. Research suggests that even untrained listeners tend to interpret frequent or poorly timed pauses as indicators of reduced fluency or difficulty in message formulation (Kahng 2021; Derwing et al. 2004). In this study, several assessors noted that after instruction, some Argentinean speakers exhibited more frequent pauses and hesitations, which may have contributed to the decrease in comprehensibility ratings observed in certain cases.

This finding supports the idea that, when explicit prosodic knowledge is lacking, listeners fall back on intuitive cues, such as pausing and speech rate, when judging L2

speech. These cues, though not always directly related to core prosodic competence, can significantly influence how speech is perceived in terms of fluency and intelligibility (Trofimovich and Isaacs 2012; Saito et al. 2022). Thus, the specific linguistic factors reported by the listeners (e.g., pauses, segmental inaccuracies) provide a clear response to Research Question 2.

In contrast to the comprehensibility results, the overall analysis of accentedness ratings revealed a noteworthy decline. At the individual level, none of the speakers demonstrated a significant improvement in accentedness between the pre- and post-test, reinforcing the idea that accentedness and comprehensibility are distinct constructs that develop independently (Trofimovich and Isaacs, 2012).

These results raise important questions about why all students experienced lower accentedness ratings after instruction, both collectively and individually. One plausible explanation, based on listener feedback, is that raters, who had received formal training in segmental phonology during their academic careers, focused primarily on segmental and syntactic features when evaluating the speech samples. Since the workshop emphasized suprasegmental instruction, segmental aspects were not explicitly targeted, possibly resulting in listener attention being drawn to unchanged or problematic segmental features. This finding further contributes to answering Research Question 2, as it reveals the specific segmental cues that listeners prioritized when perceiving accented speech.

Moreover, in perceptual assessments such as this, unless raters are explicitly guided to attend to suprasegmentals, they may naturally prioritize more familiar or salient features, particularly segmental errors, over prosodic elements. This tendency highlights the importance of aligning instructional focus with assessment criteria, as well as raising listener awareness of the suprasegmental dimensions that may contribute to more accurate and fair evaluations of L2 speech.

Another relevant factor concerns the type and quality of input students received during the workshop. Since the sessions were conducted by trainee teachers, it is possible that the input models provided were not sufficiently robust to facilitate noticeable improvements in comprehensibility. The trainees' limited teaching experience may have influenced the effectiveness of instruction, potentially affecting learner outcomes. Research shows that instructor experience plays a key role in pronunciation instruction effectiveness. According to Levis et al. (2016), well-trained teachers, regardless of native speaker status, can successfully support pronunciation development if they employ informed and strategic pedagogical approaches.

Additionally, it is important to consider that both the trainees and workshop participants shared the same first language (L1). In this context, communication occurred within a shared intermediate L2 system, which may have enabled smooth interaction but offered limited exposure to the kind of phonological variation necessary for improving international intelligibility. This dynamic is consistent with findings by Moghaddam (2012), who notes that while non-native English-speaking teachers (NNESTs) who share learners' L1 can influence their own learning experiences to guide students effectively, this shared background can also result in reduced sensitivity to problematic L2 features that are not salient within the shared developing system.

Moreover, Golombek and Jordan (2005) found that many NNESTs feel underprepared or insecure about their ability to model pronunciation effectively, especially in suprasegmental domains, which may influence both the scope and confidence of their instruction. While learners often prefer native models for pronunciation (Li 2016), the effectiveness of NNESTs can be greatly enhanced with targeted training, particularly in raising awareness of suprasegmental features that might otherwise be overlooked in shared L1 contexts.

These findings highlight the importance of ensuring that pronunciation instruction, especially when led by pre-service teachers, includes not only accurate input and explicit focus on suprasegmentals, but also awareness of the potential limitations imposed by shared linguistic backgrounds and limited instructional experience.

Conclusions

This study explored the development of L2 comprehensibility and accentedness, focusing exclusively on the content of a short-term suprasegmental-focused workshop. The results revealed limited immediate improvement in participants' perceptual ratings; however, the findings underline several pedagogically significant implications.

As for the Brazilian listeners, all participants reported limited formal instruction in suprasegmentals, having received more explicit training in segmental phonology. While they demonstrated strong interrater consistency in their evaluations, the results suggest that enhanced knowledge of prosody, particularly stress, rhythm, and intonation, could further improve their evaluative accuracy. Familiarity with suprasegmental features may also support a subtler understanding of how these elements influence comprehensibility and accentedness in L2 speech.

These findings reaffirm the importance of adopting a holistic approach to pronunciation instruction, one that integrates both segmental and suprasegmental features. Such an approach not only benefits L2 speakers by promoting more intelligible and natural-sounding production but also enhances the perceptual skills of listeners, who play a central role in interaction and meaning negotiation. In multilingual contexts where English is used as a lingua franca, listener flexibility and awareness become as important as speaker clarity. Looking ahead, future research would benefit from adopting longitudinal designs with more extended instructional periods to determine whether sustained suprasegmental training can yield stronger and more lasting effects on learners' comprehensibility and perceived accentedness. In addition, studies that provide raters with explicit training in suprasegmental features prior to the evaluation could help to clarify whether enhanced awareness of prosody shifts their focus away from segmentals and toward a more balanced assessment of L2 speech. Together, these directions would contribute to a deeper understanding of how instruction and evaluation interact in shaping the outcomes of pronunciation pedagogy.

Although the limited perceptual gains observed in this study might suggest that the workshop fell short of its objectives, we contend that its pedagogical value lies in three key contributions. First, the trainee teachers gained practical experience in teaching L2 pronunciation, an area often underrepresented in teacher education. Second, the Argentinean students were introduced to suprasegmental instruction,

which may foster longer-term improvements not yet reflected in immediate outcomes. Third, the Brazilian listeners, many of whom are active language teachers, were exposed to a novel L2 accent, prompting reflection on their own role as listeners and the challenges involved in understanding accented speech.

This study highlights the shared responsibility in communication: intelligibility is not solely the speaker's burden, but a dynamic process that involves the listener's perceptual flexibility and linguistic awareness. As most of the Brazilian assessors were current or future educators, this shift in perspective toward listener responsibility and sensitivity is especially valuable in shaping inclusive and effective language teaching practices.

We hope this research contributes to ongoing discussions on the interplay between segmental and suprasegmental instruction in L2 pedagogy and encourages further studies on listener–speaker interactions across different L1 backgrounds. Future research involving larger and more diverse participant populations will be essential to strengthen the generalizability of findings and deepen our understanding of how pronunciation is taught, perceived, and negotiated across various instructional and intercultural contexts.

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Artifacts of Identity: Navigating Cultural and Psychological Paralysis in Marj Gurasich's *Letters to Oma* and Bharati Mukherjee's *Jasmine*

*By Felix Boakye Oppong**

The journey to novel territorial borders promises an enduring battle of adaptation, retention, and reinvention of immigrants' cultural identities and orientations. Immigrants have no choice but to readjust to the demands of the new culture while preserving aspects of their former identities. Physical artifacts help immigrants survive and function as markers of their cultural identity and psychological experiences, as seen in Marj Gurasich's Letters to Oma and Bharati Mukherjee's Jasmine. Key objects such as Prakash's suitcase, letters, and the cuckoo clock symbolize cultural retention and readjustment for Christina and Jasmine. The immigrants forge and establish emotional and psychological connections with these objects to navigate the challenges of relocation and cultural displacement. Jasmine and Christina succeed in a foreign land because of their concurrent shedding of and dependency on these artifacts, which offer solace and a sense of home amidst the psychological struggles immigrants face in assimilating and retaining aspects of their identities. The artifacts not only specify the immigrants' shifting identities, but also indicate their resistance and preservation of their cultural identities. Ultimately, material culture signifies personal histories and narratives of identity renegotiation and acculturation.

Keywords: *Identity, Artifacts, Cultural Paralysis, US Immigrant Literature, Acculturation*

Introduction

Marj Gurasich's *Letters to Oma* (1989) and Bharati Mukherjee's *Jasmine* (1989) feature a myriad of artifacts that signify the retention and transformation of the cultural identities of immigrants. Naturally, artifacts convey unique inferences to different people in diverse contexts depending on factors such as social class, cultural disposition, and sociolinguistic traits.[1] As social actors, humans assign significance to objects to make sense of the environment and form new identities through their interactions with them. Arjun Appadurai (1986) in *The Social Life of Things* points out that objects gain meaning through "human transactions, attributions and motivations," as well as the "concrete, historical circulation of things… inscribed in their forms, their uses, their trajectories." Constant interactions with objects often lead to the development of intense emotional and psychological attachments to them. Humans value objects like flowers, houses, and so on, as they have socially validated intrinsic and extrinsic appeal. The

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[1]In the case of the convergent settings of Gurasich's *Letters to Oma* and Mukherjee's *Jasmine*, Christina's family and Jasmine transition from the German and Indian cultures, respectively, to the United States of America, typically described as the land of opportunities and freedom.

historical production and stylistic features of objects significantly influence and shape people's views and interactions with them (Judge et al. 2020).

Therefore, unfamiliar or novel situations present an uncomfortable feeling, as they challenge our ability to relate to the objects in those places. Accordingly, it is normal for people to rely heavily on familiar artifacts to survive and "remember our personal past" (Heersmink 2021). Over time, our continuous interactions with these objects in a new culture ultimately shift our worldview and cultural orientation. The disconnection from our previous culture gradually prompts us to shed some objects and retain aspects of our cultural identities. As much as artifacts that satisfy physiological needs are vital, the familiar artifacts the immigrants bring with them give them emotional stability, preserve their memories and identities, prevent cultural erasure, and spur them on to achieve their ambitions.

Despite facing their fair share of criticism, both novels vividly capture the challenges immigrants encounter and portray their resilience in the face of adversity. Although Mukherjee in 1980 faced depression during her movement to America due to the "losses and gains of migration and a consequent ambivalence of her North American Status" (Maxey 2019), and a negative reaction from commentators and critics who critique her contentious and opinionated perspective on hybridity and cultural identity, her novel, *Jasmine*, has received numerous scholarly probe, "an unusually wide readership" (Maxey 2019), and an ovation for "her remarkable success in forging a coherent vision out of the chaos of her multiple displacements; and her ability to articulate that vision in a voice that is as subtle as it is insistent, as graceful as it is provocative" (Nelson 1993). Comparatively, it is no coincidence that Gurasich's novel, *Letters to Oma,* received an award for its "significant contributions to Western Heritage" (*Western Heritage*). Even though it falls within the juvenile book genre and has received less scholarly consideration, its implications extend beyond this modest categorization. It addresses broader, more mature themes such as identity preservation and acculturation that novelists epitomize in narratives like Mary Ellis' *The Bohemian Flats,* Julia Alvarez's *How the Garcia Girls Lost Their Accent,* and Mario Puzo's *Fortunate Pilgrims*.

Physical objects are symbolic markers of identity retention, assimilation, and transformation in Gurasich's *Letters to Oma* and Mukherjee's *Jasmine*. Artifacts such as the Cuckoo Clock, the letters, and Prakash's suitcase represent Christina and Jasmine's shifting cultural identities. The novels explicitly show how objects retain or alter the characters' experiences as they negotiate through the hardships of immigrating from Germany and India to the land of opportunities, the United States of America. Christina's family immigrated from a German culture that was, at the time, marked by a rally for "German unity and a constitutional government with freedom of speech and trial by jury" (Gurasich 1989), while Bharati Mukherjee's *Jasmine* was set in a postcolonial Indian society defined by communal ownership, rigid gender roles, and supernatural belief systems. Many reasons compel people to leave their homelands, the cultural fabric that has shaped their identities since childhood, in search of greener pastures. When they eventually move, they take a few of their belongings, including money, clothes, and kitchenware, that hold memories of how far they have come. Arriving in an unfamiliar place requires substantial behavioral and social adjustments to fit in and survive under the harshest and most unforgiving conditions. The characters in

the novels use, leave behind, and cling to artifacts that specify their cultural disposition and ongoing transformation.

Both immigrant novels explore the characters' identity changes and resilience as their challenging circumstances compel them to migrate to the US. Gurasich's *Letters to Oma* focuses on a German family, the von Scholls, who immigrate to Texas to escape the government-issued arrest of Max von Scholl due to his protest papers. Sustained by the 16-year-old protagonist's letters and clock, Christina Eudora von Scholl and her family navigate challenges as their arrival in a foreign land tests their tenacity and grit. Similarly, Jasmine fulfills her deceased husband's ambition after his untimely death, which coincided with his plans to study in the US. Jasmine commences this journey with the intent of incinerating her husband's suitcase at his school. She undergoes significant identity changes as she sheds and retains her possessions. Mukherjee (2011) makes a weighty statement that immigration represents "a loss of community, of language, and of extended family. It is to give up on the dream of a better future in one's home country. It is to cut oneself off from history and to condemn oneself to a world of ghosts and memories." Therefore, the immigrants' artifacts serve as a reassuring connection to their former lives and a tangible reminder of their survival.

Literature Review

Immigrants' Cultural Displacement, Liminality, and Survival

Christina and Jasmine reflect the agency and willingness to survive and flourish in a foreign land, as indicative of successful immigrants. Both immigrants attempt to navigate physical and emotional challenges and adapt to a new culture through the artifacts that they bring with them. Just like Madelaine Hron (2018) argues in "The Trauma of Displacement" about immigrants, Christina and Jasmine frequently encounter significant "psychological and physical disorders" as they acclimatize to an unfamiliar environment. They face "a wide variety of [traumatic] experiences" (Caruth 1991) that leave lasting impacts on their well-being as they transition to a new place. Unlike those emerging from war or life-threatening circumstances, they might not exhibit grave "post-traumatic effects" (LaCapra 2014). However, Jasmine, as well as Christina's family, is often exposed to "quotidian and chronic experiences such as isolation, alienation, discrimination, poverty or violence" (Hron 2018). Ultimately, they had to choose to perish, subsist, or overcome this challenge. As immigrants, Jasmine and the Scholls had the liberty "to assimilate or to disassociate from the prevailing discourse" (van der Spuy 2018). Some immigrants, like Jasmine and Christina, adjust and cope "with these possible stressors" (Hron 2018) due to their dependency or desertion of certain artifacts. Although their existence in a "third space" (Bhabha 1994), or a "state of twin identities and binary thinking" (Hron 2018), considerably impacts their identity formation and preservation, the immigrants exemplify the tenacity to thrive in a foreign land through the negotiation of struggles with the objects they carry, discard, and encounter on their journey.

Theoretical Framework

Beyond their mere physicality or dictionary meaning, the artifacts in the novels, created through the immigrants' constant interactions, reflect metaphorical connotations and require a consideration of their contextual meaning. Bill Brown's (2001) "Thing Theory" explains how humans should not merely perceive things as objects, but more importantly, we should consider the "social life" and the "evolution of things." The "potency" of things unifies humans' "private and public affection [towards them]" (Brown 2001). Hence, it would be an oversight to interpret the artifacts within the novels through narrow or stereotypical definitions by viewing Prakash's suitcase merely as a means of transport or Christina's clock solely as a timekeeping device. These artifacts represent the shifting cultural identities of the immigrants. Therefore, rhetorical considerations should address the function they play, especially concerning "the subject-object relation in particular temporal and spatial contexts" (Brown 2001). Humans are naturally inclined to "shape, code, and recode the material object world," and "make things meaningful and valuable" (Brown 1999). Thus, the artifacts, such as the ships and the clock, fulfill different functions depending on their connection to the characters. Consequently, although "human actors encode things with significance," they can only understand the objects' implications when they perceive and think of them as "things-in-motion" to comprehend their role in "human and social context" (Appadurai 1986). In economic terms, Karl Marx (1867) contends that we can discover the "use value" of things through the "work of history" or "socially recognized standards of measure." Therefore, for a thing to possess "use value," it must have an "abstract human labour embodied or materialized [in it]" (Marx 1867). The value of Jasmine and Christina's artifacts depends on the expended resources and the invested labor, as well as their historical circulation and contextual significance, as they are "portals to cultures and behaviors of the past" (Scarpaci 2016).

Material Culture as Identity Specifiers

Material culture reveals the changing identities of Christina and Jasmine. The artifacts in the novels shape the immigrants' self-perception and cultural belonging as they navigate the tensions of living in a new culture. Scholarly accounts point out the significant correlation between material culture and the formation of self and cultural identity (Appadurai 1986, Brown 2001, Heersmink 2021). Rebecca D'Arcy (2015), in her article, "Identity, Material Culture and 'Thing Theory' in Two British Migrant Novels," examines the role of objects in shaping "identity formation" and "conceptions of selfhood" in Hanif Kureishi's *The Black Album* and Monica Ali's *Brick Lane*. Similar to Christina's clock and Prakash's suitcase, "material culture and inanimate objects" lead to the development of liminal and fragmented identities that are representative of immigrants in the "diaspora" (D'Arcy 2015). Through Homi Bhabha's third space theory and Brown's Thing Theory, as well as Stuart Hall's ideas on cultural identity and Literature, D'Arcy (2015) points out that objects such as clothing, books, and newspapers reveal "contradictions between Eastern and Western Culture." These objects also signify

an immigrant's "moral dissipation," as his possession of them makes him neither Asian nor Western; therefore, he has an "unstable," "fractured [identity]" (D'Arcy 2015). Man Yiu (2018) supports D'Arcy's argument that culinary objects, such as "Lychees," connect with immigrants' experiences and portray their nostalgia and fragmentation as hybrid individuals. Similar to the ships that Jasmine and Christina go aboard, objects can be restrictive on the immigrant's "physical freedom," as the immigrant cannot break loose from the "harsh and threatening" realities, nor disentangle her "personal life" from the influence of the "outside world" (D'Arcy 2015). Therefore, it is not only possible to "map out the life of the immigrant in literature through a cartography of objects" (D'Arcy 2016), but also, it is undeniable that objects reveal the changing identities of Jasmine and Christina's family. Equivalent to D'Arcy and Yiu's argument about hybridity, the immigrant novels express the preservation and changes that Jasmine and Christina undergo through the artifacts they possess.

Although people travel abroad for exclusive reasons, artifacts like Prakash's suitcase compelled Jasmine to journey to a new territory and reinvent her identity. Timothy Ruppel (1995) argues that Prakash's suit was the "'mission' that controlled her [Jasmine's] journey to the United States." Jasmine initially planned to burn the suit, and also, in the process, "cremate herself" (Olson 2008). Jasmine's act of burning "Prakash's suit" along with her "Indian clothes" signifies her ability to "break the chain of causality" (Ruppel 1995) that resulted in her unfortunate sexual defilement. The uncertainty of the immigrant experience reflects how an artifact like the suit that prompted Jasmine's immigration to the US also led to an adverse outcome. Although Jasmine survived at the hands of Half-Face, her association with the artifact simultaneously evokes both hope and hardship. While Ravichandran and Deivasigamani (2013) argue that Jasmine failed as she tried to "separate herself from all that is Indian and forget her past completely," as her former identities "emerged in specific moments" to "exacerbate the tension," Ruppel's (1995) argument that the novel discourages cultural "preservation, stasis, and attachments," and instead embraces reinvention and adaptation more accurately describes Jasmine's identity shifts. Sanja Čukić (2016) draws attention to the contradiction between the diaspora account in the "letter" that Professorji wrote to Prakash and the "reality" of his family's backwardness, as they are "completely locked away from life in America due to his [family's] unwillingness to accept their new home or let go of the past." Jasmine describes it as an "artificially maintained Indianness" (Mukherjee 1989), since "they let nothing go, lest everything be lost" (Mukherjee 1989). Ruppel and Olson make a compelling case that Prakash's suitcase is the key reason for Jasmine's journey; however, it is irrefutable that Professorji's letter is the preliminary, underlying catalyst for Jasmine's immigration.

Identity Reinvention as a Non-Negotiable Endeavour

In addition, in her quest to survive in a new culture, Jasmine had no choice but to adapt to the American culture. Scholars who interpret Jasmine's assimilation into the American culture and retention of her Indian heritage come from three schools of thought. While scholars like Inderpal Grewal (2005) question Jasmine's

full integration into American culture, pointing out her neglect and negative framing of her Indian heritage, others like Asha Nadkarni (2012) claim that Jasmine was "never actually Indian at all." Critics, such as Erin Ninh (2013), refute her complete "assimilation" into the American culture. Ninh (2013) suggests that her "perpetual liminality" supersedes it, while Susan Koshy (2004) claims that Jasmine was only reinventing herself to fit the "demography of the dominant group [the American culture]" instead of "an alternative vision of Americanness." Suchismita Banerjee (2012) emphasizes Jasmine's refusal to accept the "paralysis of exilic consciousness" by fully engaging with the cultural diaspora of America to forge a new identity. On the other spectrum, Henriette-Juliane Seeliger (2020) argues that Jasmine did not perceive homeland as a "pre-existing place" that requires protection. Jasmine not only adapts to fit the culture of the new land but also ultimately influences the "land and its cultural meanings" (Seeliger 2020). My argument tilts towards Seema Sharma's (2020) emphasis on Jasmine's attempt to "demolish her past except for occasional memories of Prakash," and Banerjee's (2012) claim that the novel develops "ambiguous sites of identity performance," where Jasmine has no choice but to be both "complicit and resistant" to the demands of the American culture. Jasmine had to prioritize her survival in a foreign land over anything else. As much as she recognized that she had to let go and also maintain aspects of herself that drew her to her past, including the artifacts that linked her to her husband, she had to adapt to the American way of life successfully. The immigrant journey requires an acculturation to the culture of the new land and a retention of aspects of the former culture. Unlike Jasmine, Christina's family reflects Ninh's claim as they concurrently retained aspects of their German culture and integrated into the American way of life; thus, they reflect Bhabha's hybrid identities.

Artifacts as Survival Outlets

Jasmine's ability to survive was contingent on the functional load of specific artifacts, particularly their commercial worth. Jasmine's hair initially assured her of fitting into the American culture due to the artifact's economic exchange value. Reddy (2013) emphasizes the cultural and economic significance of "Indian women's hair" within the "transnational economy." Indian women's hair has a touch of "virginity and innocence," which is comparatively better than the American alternative that depends on artificial ingredients like "shampoos" and "dyes" (Reddy 2013). The transactional exchange value of Jasmine's hair is used as collateral for Professorji to promise Jasmine access to a green card. Although Jasmine's attractive hair offers her a temporary sense of liberation within the country, it also functions "as the raw material for the imperial nation-state's biopolitical surveillance" (Reddy 2013). Her beauty represents a promise of national inclusion linked to its worth, but it also indicates Jasmine's potential marginalization as a racialized immigrant. Though Reddy makes a relevant claim that, even if Jasmine does her best to assimilate into the American culture by securing a green card, her biological features make her subject to racial profiling, it is evident, as my arguments prove, that Jasmine successfully integrated into the

American way of life. Interpretations of Mukherjee's *Jasmine* extensively address issues of race (Filipczak 2017), feminism (Bhattacharya 2019, Nadkarni 2012), identity formation (Carter-Sanborn 1994, Koshy 2004), and "cosmopolitanism" and "immigrant consciousness" (Grewal 2005, Grewal 1993). Although, scholars like Ruppel (1995), Olson (2008) and Reddy (2013) emphasize that various artifacts, such as Prakash's suit and documents, are pivotal to Jasmine's immigration and adaptation to the American culture, research on both immigrant novels has not specifically explored how these artifacts reveal the identities and orientations of immigrants as they navigate a third space, where they must adapt, resist, and reinvent themselves.

Textual Discussion

Artifacts as Markers of Identity

In both novels, physical artifacts, such as Christina's clock and Prakash's suitcase, reveal the immigrants' cultural identity and represent their limitless ambition and resilience. Christina's Cuckoo clock, gifted to her by her Oma, represents her bond to her former identity. Her custody of the ornamental clock is a nostalgic connection to her Oma and her German culture. The clock is "the most exquisitely carved wooden clock Tina had ever seen. Its warm dark wood was shaped into vines intertwined with flowers and leaves of ivy, carved with the finest craftsmanship" (Gurasich 1989). The clock's design evokes a feeling of wonder and grandeur, as Christina recalls her thrilling interactions with her Oma. Moreover, the clock's qualities, especially its intricate craftsmanship, are a cue to the distinguished social class to which they belonged before her family departed from Germany, which contrasts with the uncertain future that awaited them in the new land. The value of the clock manifests not only in its historical narrative, which details its significance to her Oma, but also in the context of farewell, disconnection, and solitariness within which Christina receives it. Christina's Oma mentions that "many years ago… [Christina's] Grandfather Lembke worked for a clockmaker. He made this little clock for me. It is my dearest possession, packed away these many years" (Gurasich 1989). The antique context of how Christina's Grandfather made the clock solely for her Oma leads to the unpleasant realization that Christina is leaving her behind. The clock and the delightful memories they shared are the only reminders she has of the love and tenderness of her Oma, whom she "would soon leave behind, probably never to see again" (Gurasich 1989). At this moment, Christina perceives the clock as an indelible part of her identity, as it represents everything she stands for as a German and as a descendant of the von Scholls.

The "lovely, delicate clock" (Gurasich 1989) functions as Christina's emotional therapist amid the psychological trauma of disconnection. Every tick of the clock reminds Christina of her Oma and bridges the distance between them. It gives her the unrequited solace she desperately seeks from her mother. Thus, Christina's instinctive, valiant act to extend "her free arm" as she "reached out and rescued her little clock" (Gurasich 1989) from sinking in the river indicates her emotional attachment to the clock and depicts the clock as a symbol of home and comfort

amidst the chaos of her family's adventure. Christina, after receiving the clock from her Oma, makes a promise to herself that "She must learn the new ways and face the dangers of the new life, but she mustn't forget the old. Especially her dear Oma" and "she vowed then, no matter what hardships or dangers might await them, she would never, never part with Oma's last gift to her" (Gurasich 1989). The pledge Christina makes is representative of every human's predisposition, as we attach deep emotions to the artifacts we possess. Her unparalleled emotional attachment to the clock is evident in the therapeutic effect it has on her. The touching account that "if she had not had her little Oma's clock, she would have been lonesome" (Gurasich 1989) suggests that the alienating effects of Christina's journey require that she rely on certain artifacts for comfort and respite. The clock becomes more than just a time teller; it is a lifeline that connects Christina to her heritage. Immigrants often rely on these artifacts as sources of consolation in the face of constant struggles to readjust in a world that can feel alien and unwelcoming.

Similarly, Prakash's suitcase functions as a propeller of ambition and a source of identity formation. Jasmine moved to the United States to fulfill her husband's unmet educational ambition (Ruppel 1995, Olson 2008). The suitcase holds Prakash's aspirations and the sacrifices he has made to achieve his dream of studying in the US. Jasmine describes the suitcase as smelling "of some new man-made material. Inside it was just one thing: a neatly folded light blue Teriwool suit with a label, BABUR ALI/MASTER TAILOR/JULLUNDHAR, on the sleeve" (Mukherjee 1989). The suitcase had just one thing before Jasmine traveled—a Teriwool suit; however, her identity becomes lumped together with the aspirations of her deceased husband when she puts her belongings in the same suitcase. Jasmine resolves to offer a memorial to her husband, saying, "I thought, we had created life. Prakash had taken Jyoti and created Jasmine, and Jasmine would complete the mission of Prakash. Vijh & Wife. A vision had formed" (Mukherjee 1989). Her husband's vision in the suitcase represents a fragile, newborn baby that she has to nurture with utmost dedication. She makes this promise by saying, "'I promised,' I said. 'It is my mission to bring my husband's suit to America. I am taking it to his school and burning it where we were going to live'" (Mukherjee 1989). Jasmine's goal to burn her husband's suit was the ultimate motivation that empowered her to commence this arduous journey filled with uncertainties. When Jasmine mentions that she is "a village girl, going alone to America, without job, husband, or papers?" (Mukherjee 1989), she meant that she did not have a goal of her own and that she only embarked on the laborious journey to fulfill her husband's dreams. It is undeniable that one does not need a husband or even a job to go to America. Thus, the suppressed remnants of her husband's vision in the suitcase were the only driving force for her. It is no coincidence that other characters including Half-Face did not comprehend her motive for coming to the US, saying, "Getting your ass kicked halfway around the world just to burn a suit. I never heard such a fool notion" and "You made me carry this shit up here? You carried all this shit halfway around the world? You crazy or what?" (Mukherjee 1989). Usually, these artifacts only make absolute sense to those who have experienced a life-changing moment with them. Immigrants become so connected to these items that they do unimaginable things that they would not have considered doing if they had not developed such a deep affection for them.

Furthermore, the act of relinquishing the Cuckoo clock and the burning of Prakash's suitcase reinforce an attempt to leave behind the cultural fragments that tie Christina and Jasmine to their past selves, which no longer fully exist, and to reinvent and assume new identities. Christina and Jasmine had to break away from the memories of their past by shedding the artifacts they value. An immigrant's identity transforms not only by "construction, but also through the destruction of her existing self" (Ravichandran and Deivasigamani 2013). Therefore, Christina's family and Jasmine had to go through an emotional scuffle by destroying or giving away the artifacts that hold substantial personal and cultural significance to them in order to survive. The symbolic act of detaching from material possessions leads to identity reinvention.

Unfortunately for Christina, the immigrant journey does not allow her to make unhindered, subjective choices, as she must relinquish her most cherished artifact to survive and reinvent her identity. Christina eventually breaks the promise she made, as she unwillingly exchanges her most cherished clock with the Indians for her newfound love, Louisa Emilie, as she had to give "a last, longing look at her little clock" (Gurasich 1989) during the exchange. Through this act, Christina regrettably cuts a part of her old self, especially her memory of her grandma's parting gift, and embraces a new cultural orientation. By giving away her clock, she finally accepts that she cannot permanently keep it when it comes to matters of life and death, as she constantly had to "Point to the clock... point to the baby... [and] do not show how frightened you are" (Gurasich 1989) to persuade the Indians. Her exchange of the clock indicates a determination to survive in a foreign land. Also, it shows that the memory of her "little Oma" is "becoming dim," and she does not have anything "to remind her every hour of the grandmother who loved her more than anyone on earth" (Gurasich 1989). Thus, in this context, the Cuckoo clock represents a commodity of exchange, escape, and rebirth. The value, as well as the rarity, of the Cuckoo clock saves Christina's sibling from abduction. Her realization that she cannot hold onto the clock forever shows her gradual detachment from her cultural roots, a consequence of her presence in a new culture. For an immigrant, the struggle to survive often requires a readiness to let go of cherished artifacts and to disconnect emotionally from them in order to reinvent one's identity. Historically, as recorded in the novel's blurb, *Letters to Oma*, Gurasich (1989) came across a picture of "an antique German cuckoo clock." As a result of her profound fascination with the "story of the German settlers, their hardships and sacrifices, and their immense contributions to the patchwork-quilt culture that is Texas" (Gurasich 1989), the novel heavily centers on the clock. Christina's realization that "I know, too, that I do not need the clock as I once did, Oma. Even without it, I will remember and love you always" (Gurasich 1989) resonates with the stories of immigrants who have to adjust to a new culture as they need to let go off memories of precious artifacts to move forward successfully.

Furthermore, Jasmine's burning of the suitcase signifies a major phase of identity reinvention. Prakash's suitcase captures the theme of homeland memories and represents the transformation of identity. After Half-Face sexually molests Jasmine, the clean, unsullied suitcase of "some new man-made material" (Mukherjee 1989), which contained Prakash's aspirations, deteriorates sharply to become a suitcase of

"dishonored old clothes" (Mukherjee 1989). Following the traumatic encounter, Jasmine admits that "I could not let my personal dishonor disrupt my mission. There would be plenty of time to die; I had not yet burned my husband's suit" (Mukherjee 1989). Her transformation in identity was not solely a result of the sexual act (Ruppel 1995) but, more importantly, a reflection of her mission to destroy the fragments of her husband's aspirations. Jasmine turns into "a sati-goddess" (Mukherjee 1989) because Half-Face "touched" Prakash's suit, "put on the suit, touched my sari, my photographs and Ganpati" (Mukherjee 1989). Due to Jasmine's emotional attachment to the artifacts, Half-Face's desecration of them compels her to slay him. Jasmine reinvents her identity by putting on her "last clean salwar-kameez" (Mukherjee 1989), which implies that she has figuratively changed from a sexually assaulted Indian to a new identity. Thus, when Jasmine makes the statement that, "But Jyoti… burned herself in a trash-can.... Jasmine lived for the future... Jase…lived for today" (Mukherjee 1989), she meant that her identity is malleable, as it changes depending on the circumstances she encounters. Her changes in identity reflect Heersmink's (2021) argument that "our overall cultural identity" is "the totality of our different cultural identities." Her intentional act of burning her Indian clothes together with Prakash's suitcase rather than committing "self-immolation" demonstrates her willingness to incinerate "the shell of her previous life in order to obtain a new one" (Čukić 2016). Moreover, Jasmine receives a new suitcase from Lilian when she decides to move to New York. Jasmine states that "She [Lilian] packed me a suitcase full of her daughter's old clothes" (Mukherjee 1989). The suitcase filled with clothes belonging to an American child represents a focal shift in Jasmine's integration into American culture. The fact that she receives a new suitcase with American clothes indicates that she is gradually adapting and growing into the American culture. Lilian's advice to Jasmine to adopt the mannerisms and speech of Americans, as "they'll think you were born here" (Mukherjee 1989), indicates Jasmine's eventual success in assimilating into the foreign culture.

Material Culture as Identity Preservers and Cultural Resistors

While cultural unresponsiveness is often an obstacle to assimilation, certain artifacts suggest that this paralysis can also function as a form of resistance that allows the characters to maintain agency in preserving traditions, even as they navigate hybrid identities and the pressures of cultural erasure. Christina's Mama represents the reluctance to change and adapt to the demands of the new culture. She is the real definition of an unwillingness to move beyond the comforts of one's cultural inclinations and prejudices. In the novel, Christina's Mama "was not reconciled to the loss of her beloved china, and now, all her best dresses and bonnets were in one of the abandoned chests" (Gurasich 1989). Christina's Mama's insistence on persistently longing for her former way of life and her lamentation over lost possessions reflect a deep attachment to her German cultural identity and an inherent resistance to change. Her Mama's utterance highlights a tension between cultural preservation and adaptation in the face of change. Her reluctance to abandon the artifacts of her previous life demonstrates the challenge of readjusting to new, unfamiliar

contexts. Though Christina's Mama had a hard time adjusting to fit in, her firmness on preserving her German culture had a positive impact on her family, as their dual identities as Germans and Americans set them apart from others and expedited their survival in a foreign land. For instance, the "beautiful…cookstove" that arrives from Germany reminds the von Scholls of Mama's memories and connects them to their heritage of cooking the "Lebkuchen" (Gurasich 1989) delicacy during Christmas throughout their stay in America. By preparing traditional delicacies, "they recall home and family" (van der Spuy 2018). Their consumption of wide-ranging culinary artifacts reflects their hybrid identities as simultaneously Germans and Americans.

Objects within the immigrants' lives function as both constraints and catalysts for transformation. While some artifacts like Christina's Mama's china reinforce psychological immobility, others, such as letters, capture the immigrants' personal and cultural reinvention. The immigrant novels portray letters as artifacts that capture the hopes, hardships, and successes of the Scholls by connecting them to their cultural memories and helping them navigate their adversities with confidence. The immigrant narratives emphasize the importance of traditional communication channels as they reflect the immigrants' challenges, including their feelings of isolation and estrangement. Christina reveals that, "You must be ever so worried, my dearest Grandmother, since we left you nearly four months ago in Germany and you have heard no news of us" (Gurasich 1989). Her letters provide a realistic, chronological perspective on her family's challenging experiences, emotional trauma, and solitude. Through her vivid descriptions and reflections, Christina conveys the struggles that characterize the immigrant experience. Her promise to "keep it always, this letter" (Gurasich 1989) reveals her emotional dependence on the correspondence with her Oma. The arrival of a letter from her Oma leads to an emotional moment for Christina's mother, as it triggers a craving for the material comforts of home, as "Mama's thoughts turned … to …the things she wanted most: nice furniture and rugs, china and bedding. Her eyes shone as she saw the money fall from the envelope" (Gurasich 1989). In that moment, Christina's Mama's thoughts drift to the tangible things that would enhance their survival in a foreign land. Christina's correspondence with her Oma captures moments of longing, distress, and survival, as she is filled with "tears" when she reads her Oma's "small, spidery handwriting" (Gurasich 1989). The letters also show the emotional distress that accompanies such a significant life transition. Christina's letters to her Oma present a personalized narrative of the difficulties they encounter in a foreign country. Gurasich (1989) emphasizes in the blurb of her novel that "More often these letters—and the text woven in between them—are bright with adventure, for Tina finds Texas an exciting, if puzzling, place." In the novel, Christina celebrates overcoming challenges through the letters to her Oma. The vivid descriptions in the letters capture her identity transformation.

Artifacts as Immigration Agents

Additionally, letters amplified the characters' aspirations and eventually inspired them to leave their homeland. In *Letters to Oma*, Max von Scholl's papers kickstarted his family's immigration from Germany. The protest papers represent a deliberate resistance against Max's country's manner of governance. Though Max wished to ignite a sense of civic responsibility and encourage active participation in the fight for a more just and democratic society, he concurrently attracted backlash when he published "papers condemning the government and urging the people to demand a democracy for Germany" (Gurasich 1989). The protest papers set the stage for the Scholls' immigration since Max's criticism of the government through the papers forcefully pushed them out of their birth culture. Max opposed the status quo and broke his allegiance to the German government the moment he decided to protest it. Therefore, he had the option to stay and fight, which was not likely, or leave for Texas, which "means freedom for you and your family, Max, freedom!" (Gurasich 1989). As he criticizes the government's failures and calls for reform, he creates an environment that makes it increasingly implausible for his family to remain in their homeland. Also, Max's family's immigration was contingent on the letter he received from Herr Friedrich Ernst about the possibilities abroad, such as the land and house-building arrangements available to German immigrants. Christina points out in one of her letters that they moved to Texas as a result of Ernst's "letter…[that] Papa read and then decided we would come to Texas" (Gurasich 19891). The sugarcoated letter awakens the immigrants' curiosity and entices them to travel. At that point, they envision a future that diverges from their birth culture; thus, they find themselves in a moment of identity renegotiation.

Similarly, letters and travel documents create a charming mirage that inspired Jasmine's immigration to a foreign land. During Jasmine's childhood, Masterji, her teacher, used to read letters from his "nephew in California" (Mukherjee 1989) about the climate and work conditions in the US. These letters and stories subconsciously ingrained a desire to travel abroad in Jasmine. The letter from Professor Devinder Vadhera completely changed the narrative of Prakash and Jasmine's lives forever. The letter gives purpose and intent to the couple who eagerly wanted to "be on the other side of earth, out of God's sight" (Mukherjee 1989). Jasmine admits that she did not "think, growing up in Hasnapur, we ever sent or received a letter" (Mukherjee 1989). Therefore, Professorji's reassurance in his "sleek blue American aerograms" that he wants to see Prakash "leave the petty, luckless world of Jullundhar" (Mukherjee 1989), so that his "truly best student [will be] blooming in the healthy soil of this country [US]" (Mukherjee 1989), depicts the orthodox facade of a land flowing with milk and honey against the reality of alienation and constant struggles that travelers to foreign lands constantly face. The letter not only conveys a deceptive scheme about the immigrant experiences abroad but also creates a sense of urgency that drives the immigrants to visualize their success in a foreign land without considering the accompanying complications. By imagining a life beyond their birth culture, Jasmine's national identity and fidelity as a patriotic Indian come into question as she contemplates the possibility of seeking refuge in an alternative culture. The strong attraction that

ultimately compelled Jasmine to leave the familiarity of her homeland creates an avenue for the mediation of identity.

Furthermore, the "forged, expensive passport" and "forged documents" (Mukherjee 1989) represent Jasmine's sole passage to accomplish her husband's aspirations. These documents are not just mere travel assets; they showcase Jasmine's ability to navigate a world that has become increasingly hostile. The identity of Jasmine as an accepted immigrant depended so much on her securing a "green card" or, in more desperate circumstances, "even a forged one," as she hardly felt "safe going outdoors," admitting that "a green card was freedom" (Mukherjee 1989). For Jasmine to survive in a foreign land, she had to reinvent her identity to fit in the American culture. Obtaining a green card represented not just legal status but a pathway to freedom and the chance to build a new life in a foreign land. In contrast to Grewal's (2005) concession that Jasmine migrated "without documents," even the excitement of using counterfeit "visa stamps" made Jasmine "feel renewed, the recipient of an organ transplant" (Mukherjee 1989). To assimilate into American culture, she felt compelled to reinvent herself in ways that allowed her to blend in by relying on the disguise of forged documents. By using fake documentation, Jasmine presents herself as "nineteen" (Mukherjee 1989), which gives her a camouflage of youth and innocence. Her statement that she "bloomed from a diffident alien with forged documents into adventurous Jase" (Mukherjee 1989) captures the depth of her identity reinvention, as she was not merely adapting; she was being reborn.

Artifacts as Indicators of Hybrid Identities

Ships operate as hybrid, liminal spaces where Jasmine and the Scholls experience the weight of impending hardships and uncertain futures that collide with the echoes of cherished memories left ashore. More than mere vessels, *Neptune* (Gurasich 1989) and "a shrimper out of Grand Cayman called *The Gulf Shuttle*" (Mukherjee 1989) symbolize the tension between departure from a culture that holds so many nostalgic memories and arrival in a new culture with uncertain circumstances. *Neptune* and *the Gulf Shuttle* represent a disconnection of the passengers' ties to their past and an ushering into uncharted realities. The names of the ships resonate with the immigrants' contemporaneous emotions of hope and misery. Neptune, "the eighth and most distant planet from the sun" (Wood 2022), and the Gulf, a vast expanse of sea with a narrow opening, represent a journey from familiar territories to a distant land of uncertainties, restrictions, anxieties, and alienation, which reflects Hron's (2018) argument on the alienating effects of immigration. The passengers leave behind their former identities and embrace new beginnings. Christina says that "*Neptune* was our unhappy home for fifty-eight days. I began to think we would never set foot on land again. The cold, wet winds chilled our bones and rocked the ship to and fro like a paper boat on a windy pond" (Gurasich 1989). Christina's account captures the harrowing conditions faced by immigrants during their journey across the sea. While the ships promised passage to a land overflowing with opportunities, the reality aboard was far from ideal. Christina's family, together with other immigrants, endured relentless hardships. They stayed in "overcrowded" bunks, had inadequate and "miserable" (Gurasich 1989) food supplies, and faced

the constant threat of illness and death. The experience was not merely a physical expedition, but also an emotional trial that tested their resilience, as they had no choice but to survive in such deplorable circumstances that required situational adaptation.

Notwithstanding the immigrants' multifaceted cultural or racial orientations and individual preferences, their presence on the ships makes them an indistinguishable, homogeneous group of homo sapiens. Being on the ships, the immigrants' cultural identities cannot be ascertained, as they were even terrified that they may "end up [as] bait-fish" or "[be] domped in dat goddom ocean!" (Mukherjee 1989), as "bodies were given to the sea" (Gurasich 1989). This description highlights the anonymous, non-human-like identities of the immigrants on the ships. At this point, they are suspended in the fragile balance between longing for their old way of life and adapting to their new environment. As these ships glide through the ocean, Jasmine and the Scholls reflect on the bittersweet farewells of the familiar, while boldly moving toward the unknown. For instance, the ship Jasmine embarks on represents the promise of an arduous journey of self-discovery. Jasmine mentions how they slept in "tiered bunks" and "under the tarp" (Mukherjee 1989). She emphasizes that "In the New World, … You learn to roll with the waves and hold the vomit in" (Mukherjee 1989). The immigrants' difficult experiences on the *Neptune* and *The Gulf Shuttle* foreshadow the impending danger, emotional turmoil, and alienation that await them in their destinations. Each challenge they encounter builds a sense of unease that reflects the isolation and unrest that lie ahead. Bhabha's (1994) idea of the third space suggests that identity is not fixed but is negotiated within spaces of ambiguity. The ships in *Letters to Oma* and *Jasmine* embody this uncertainty, as they serve as sites where the immigrants hover between past and future and struggle with the psychological stasis of migration.

Artifacts as Signifiers of Shifting Identities

Finally, in Christina's effort to adapt to her new life in Texas, the bluebonnets metaphorically mirror the determination and hope that define her identity. Christina develops a deep emotional connection with the bluebonnets, a flower that symbolizes perseverance and beauty in her new life in Texas. "They were called bluebonnets, and Tina knew she would never see another flower she would love as much. To her, they symbolized her new life in Texas" (Gurasich 1989). The bluebonnets represent Christina's newly formed identity, as they "grew everywhere, coming up unbidden and untended, but dauntless, filling the air with their spicy fragrance. Nothing could stop them; they were a part of Texas" (Gurasich 1989). These features parallel her determination to help her family adapt to their circumstances. Christina's utterance, "no matter what she had to do to help her family survive these early hardships, they would learn to love this land and become a part of it" (Gurasich 1989), emphasizes her sense of responsibility and her courage in facing adversity. Unlike her Mama, who consistently resisted assimilating into the new culture until her untimely death, Christina hopes that her family will embrace the new culture and fully integrate into its community. Just as

the bluebonnets are a permanent part of Texas, Christina wishes for her family to welcome the challenges and the beauty it offers, saying, "I want all of us to grow up as good Americans, never forgetting that we are Germans, too" (Gurasich 1989). The bluebonnets represent a metaphor for personal growth and a reflection on Tina's environment. It suggests that the Scholls ultimately flourish and belong in the land of Texas, regardless of the hardships they faced.

Comparatively, the jasmine flower represents the connection between past cultural heritage and integration into a new environment. The title of Mukherjee's novel, *Jasmine*, symbolizes the adaptability of Jasmine as she negotiates multiple identities. The jasmine flower—typically called the "Queen of the night" and known for its shallow-root quality and "noticeable fragrance" (*Jasmine Plants* 2018)—conveys Jasmine's remarkable ability to persist through the many challenges she faces. Jasmine recalls that her father "would lie on a charpoy under a flowering jasmine tree all day" (Mukherjee 1989), and she put the "sweetest-smelling jasmines" (Mukherjee 1989) and "jasmine wreath" (Mukherjee 1989) in her hair. Considering the meaning of the flower, Jasmine embodies the essence of its fragrance as her enduring identity aroma is not bound by geography. As she acknowledges, "Jyoti, Jasmine: I shuttled between identities" (Mukherjee 1989), her figuratively shallow roots give her the autonomy to flourish in a foreign land. As Carter-Sanborn (1994) concedes, the "metamorphosis of character" is founded on "violence" and "pain wrought from without," as she had to change her identity through violence on her first day in America. As she changes from Jyoti to Jasmine to Jane, it illustrates her hybridity as she effortlessly transforms into a different personality depending on the context. Jasmine makes a factual statement that "America may be fluid and built on flimsy, invisible lines of weak gravity, but I was a dense object, I had landed and was getting rooted" (Mukherjee 1989), which reflects the name Prakash gave to her. Hron's (2018) argument that certain immigrants are better equipped to adapt and manage immigration "stressors" accurately reflects Jamine's determination to survive despite her struggles with alienation.

Conclusion

In Gurasich's *Letters to Oma* and Mukherjee's *Jasmine*, artifacts serve as major symbols of identity formation. Mukherjee (2011) emphasizes that "immigrants are determined to remake their identities…even if the larger society fails to recognize that goal." Throughout the novels, artifacts have a significant impact on the immigrants' journey of identity retention and transformation. Artifacts like the clock function as the immigrants' emotional therapists in overcoming the psychological trauma of disconnection. As much as immigrants become passionately connected to the artifacts, their only means of survival is to let go of the artifacts and detach from them emotionally. Artifacts also help them to retain and uphold traditions while they contend with hybrid identities. Through their interactions with objects like Christina's letters, Prakash's suitcase, the ships, and the Cuckoo clock, Christina and Jasmine confront the challenges of assimilation while forging new identities in a foreign land. Ultimately, these artifacts capture the intricate narratives of acculturation and identity reinvention that define the immigrant experience.

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