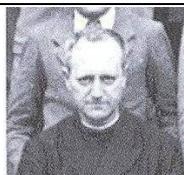


## José María de Oleza Arredondo, S.J. (1887–1975)

He was born in Palma de Mallorca, Spain (14 July 1887), and died in Santa Vera Cruz, Bolivia (6 Sept 1975). “S.J.” are the initials of “Society of Jesus” (“*Societas Iesu*” in Latin and “Compañía de Jesús” in Spanish), a Catholic religious congregation whose members are called Jesuits<sup>1</sup>. Reviewing the origins of quantitative linguistics in Spain – and Catalonia in particular – requires attention to be paid to some singular figures, such as the Jesuit Father José María de Oleza Arredondo. He is a singular case because, strictly speaking, his only known contribution to Quantitative Linguistics is *Spanische Lautdauer*<sup>2</sup> (Menzerath & De Oleza 1928); this work was co-authored with the German phonetician Paul Menzerath (1883–1954). The actual role of de Oleza in this publication is unclear.

However, as we will see, the open-minded mentality and philosophy of José María de Oleza, S.J., was actually that of a quantitative linguist who tried to study languages scientifically, as revealed by his active participation in the foundation of the *Oficina Romànica de Lingüística i Literatura*<sup>3</sup> (OR), an institution that promotes the study of the Catalan language in all its manifestations (Iglésias 2005). Interestingly, De Oleza did not preside over it, because of his modern scientific convictions. For example, he wanted to make use of an international phonetic notation (that he considered better than others promoted by other local Catalan scholars), to change some Catalan spelling rules, or to pursue an ideology-detached scientific study of languages (Iglésias 2005).



**Figure 1:** José María de Oleza Arredondo, S.J., (1887–1975), in addition to following his religious vocation, was a remarkable Romanesque philologist and grammarian. His timely collaboration with Paul Menzerath in the “*Spanische Lautdauer*” (1928), which may have initiated quantitative linguistics in Spain, was cut short by both his personal and historical circumstances. Photograph courtesy of *l'Arxiu dels Jesuïtes de Catalunya*.

José María de Oleza was born in Palma de Mallorca on May 14th, 1887; he was a son of the infantry captain Don (Mr.) Manuel de Oleza and Doña (Ms.) Concepción Arredondo<sup>4</sup>. He joined the *Societas Iesu* on August 8th, 1908, in Gandia, and received a presbytery in the village of Sarrià (Barcelona, Spain) in 1920, after his university training. First, he studied humanities in Veruela, Spain (1910–1914), where most Jesuits were trained. Then, he pursued postgraduate studies in philosophy at Gemer (in the

<sup>1</sup> It is usual to place these initials at the end of the full name of the members of this community, as it appears for example on the cover of the book *Spanische Lautdauer*.

<sup>2</sup> In German. English translation: “Duration of Spanish sounds”.

<sup>3</sup> In Catalan. English translation: “Romance Bureau of Linguistics and Literature”.

<sup>4</sup> The main biographical information for this article has been extracted from the personal file that was kindly provided by Father Francesc Casanovas, S.J., from the Archive of Jesuits of Catalonia (*Arxiu dels Jesuïtes de Catalunya*), as well as from the article published by Jesuitas Bolivia in *Diáspora*, on October 18th, 1975, supplied by Father Antonio Menacho, S.J., and from the article “A philologist, from the Rhine to the Andes” by Tambor Vargas, which was published in *La Patria*, Cultural Magazine *El Duende*, on September 30th, 2012 (<http://lapatriaenlinea.com/index.php?t=un-philologist-del-rin-a-los-andes&note=121151>).

Netherlands) between 1914 and 1917, in the difficult context of the First World War. Finally, De Oleza graduated in theology at Barcelona and Valkenburg (Netherlands) in 1921. One has the impression that, without detriment to his religious vocation, both social circumstances and his scholarly interests (possible linguistic concerns) led José María de Oleza to become a priest at the age of 33 – a symbolic age in Catholicism, the practice being common for Jesuits in the early 20th century.

In fact, after he completed his training as a Jesuit and priest, his early love for philology led him to be part of the group of Catalan philologists, many of whom were also priests – such as Antoni Griera i Gaja (1887–1973), Antoni M. Alcover (1862–1932), and Josep Calveras, S.J. (1890–1964) - who studied in Germany and founded various institutions in Barcelona aimed at promoting the scientific study of Romance languages. These included, for example, the OR and the *Societat Catalana de Filologia*<sup>5</sup> (SCF). Later, the objectives of these parallel institutions were taken over by the *Institut d'Estudis Catalans*<sup>6</sup> (IEC), an institution that has been promoting Catalan studies up to the present day. These were difficult years for various reasons, including the dictatorships of Primo de Rivera (1923–1930) and of Francisco Franco (1939–1975); in these long periods, Catalan was banned and persecuted (Iglésias 2005). In between, in the periods of the Spanish Republic (1931–1936) and Civil War (1936–1939), the Jesuits were also persecuted and forced into exile.

Father De Oleza enrolled at the Rheinischen Friederich-Wilhelms-Universität zu Bonn, where he studied Romance Philology, Classical Languages, and General Phonetics. On December 14th, 1927, he defended his PhD thesis supervised by the eminent Romanist Wilhelm Meyer-Lübke (1861–1936): *Zur Bestimmung der Mundart der Katalanischen Version der Graalsage*<sup>7</sup> (*Codex I.79, Ambrosiana, Milano*). The professors of the University wanted the superiors of the *Compañía de Jesús* to allow him to stay at the faculty, but De Oleza was in the end appointed teacher of Latin, Greek, and probably German, to the junior Jesuits in Veruela.

However, De Oleza took full advantage of his stay in Bonn, as evidenced by the epistolary relationships he had, especially with another Jesuit father, Josep Calveras (Iglésias 2007). During the period of his doctoral thesis, De Oleza greatly influenced his supervisor Meyer-Lübke in regard to considering Catalan as a fully-fledged Romance language and not merely an Occitan dialect, as Meyer-Lübke's publication "*Das Katalanische*" (1925) shows. In this respect, de Oleza was a free thinker and pioneer. However, his academic passion led him to go much further in his stay in Bonn – he collaborated closely with Paul Menzerath in his experimental phonetic study of Spanish. De Oleza probably sensed that his time in academia would end when he finished his thesis, since his superiors decided that he should return to Veruela to train young Jesuits.

The collaboration with Menzerath was probably carried out in 1927, although the *Spanische Lautdauer* was published the following year. As proved by several letters he sent to Josep Calveras, S.J., de Oleza desperately sought the funding necessary to publish the copies of his thesis, which the University of Bonn required for a positive evaluation to grant a PhD degree (Iglésias 2007: 134–140). In fact, only part of his thesis was published in the end, probably due to economic constraints (de Oleza 1928b).

*Spanische Lautdauer* is a seminal work in both phonetics and quantitative linguistics. Menzerath chose Spanish for this study as it is a relatively transparent

---

<sup>5</sup> Catalan Association of Philology.

<sup>6</sup> Institute of Catalan Studies.

<sup>7</sup> In German. Translation into English: "On the determination of the dialect of the Catalan version of the Graalsage (Codex I.79, Ambrosiana, Milano)".

language, that is a language with an almost direct correspondence between the graphemes (or letters in the written language) and the phonemes, so that there is little difference between the acoustic segmentation of the syllables and the corresponding one in the written language. Menzerath's need for a native speaker and a philologist expert in Spanish is perhaps the reason for the involvement of de Oleza. Curiously, *Spanische Lautdauer* neither appears in the list of works at the Archive of the Jesuits of Catalonia, nor is it mentioned in the correspondence in a period in which de Oleza sought funds for his thesis (but was not successful in securing these). It could be that de Oleza feared that his superiors would consider such work an unnecessary distraction, at a time when the OR was also starting, or even that he humbly thought that his contribution to the book did not actually deserve an authorship, according to high ethical standards. We may never know the real reason.

In *Spanische Lautdauer* (1928), after classifying the words according to the number of syllables they contain and their accentuation, the authors measured the duration of hundreds of words and each of their syllables, using an electromechanical device – the kymograph – that Menzerath had refined. The segmentation of the signals seemed crucial to Menzerath. In his laboratory, he could carry research with various mechanical devices that he had developed in previous years; among these was the redesigned kymograph, which allowed him to record on paper the sounds emitted by the human voice. The kymograph had been invented by Pierre-Jean Rousselot (1898), and subsequently evolved into various models by Scripture (1906), Meyer (1911), and Panconcelli-Calzia (1924), according to Hess (1983: 93–103).

De Oleza knew how Juan de Pablo Bonet (1573–1633) had been reflecting on the teaching of deaf-mutes much earlier, in 1620, in his *Reducción de las letras y arte para enseñar a ablar los mudos*<sup>8</sup>, one of the first treaties about modern phonetics and speech therapy. De Pablo Bonet had pointed out that all the articulating organs collaborate jointly in the production of speech sounds, establishing the popular metaphor of the Spanish guitar, which would be revisited by the famous Spanish phonetician Tomás Navarro Tomás (1884–1979) in his *Manual de Pronunciación Española*<sup>9</sup> (Navarro Tomás 1918: 156). According to this metaphor, the position of the sound producing organs when a voice is produced is reminiscent of how fingers are placed on the strings of a Spanish Guitar when it is being played.

Menzerath, on the other hand, was familiar with the 1923 German translation of the *Manual de pronunciación española*, a work cited as a reference manual at the beginning of *Spanische Lautdauer* (Menzerath & de Oleza 1928: 1). In many respects, Menzerath was an heir to the line of Germanic research inaugurated by the physiologist Ernst Wilhelm von Brücke (1819–1892), who highlighted the need to separate phonetics from philology, connecting – in his *Grundzüge der Physiologie und Systematik der Sprachlaute für Linguisten und Taubstummenlehrer* (1856) – the former with human anatomy. In his works, Brücke described for the first time the articulatory characteristics of the phonetic production. However, he treated the language elements as isolated, and with a unique phonetic correspondence. By contrast, Menzerath, beginning in *Spanische Lautdauer*, tried to overcome the static conception proposed by Brücke, and to complete it – jointly with the Portuguese linguist Armando Soeiro Moreira de Lacerda (1902–1984) – with a definition and early understanding of the phenomenon of coarticulation. This was the intuition that Juan de Pablo Bonet had three hundred years before with the metaphor of the Spanish guitar.

---

<sup>8</sup> In Spanish. In English: “Reduction of letters, and the art of teaching the dumb to speak”.

<sup>9</sup> In Spanish. In English: “Handbook of Spanish pronunciation”.

Menzerath and de Oleza tabulated the mean durations of the words according to their numbers of syllables and the position of the stress, and presented the results graphically (Menzerath & de Oleza 1928). It is important to note that Menzerath and de Oleza prefer the concept of 'sound' (*laut*) rather than that of the phoneme; thereby, they refer to a modern materialist (physical) perspective that began in the 19th century and which many phoneticians defend, as it is a way to avoid the controversial debate about the actual existence of phonemes beyond their abstract or theoretical conception. In their joint book, Menzerath and de Oleza focus on formulating and confirming linguistic hypotheses that range from certain phonetic particularities of Spanish to some more general ones, such as the laws that are highlighted by Best and Rottmann (2017: 100) when reviewing the history of quantitative linguistics:

The Menzerath-Altmann law processes a different perspective of language: the “vertical” one that connects linguistic levels with each other. A decisive step towards that was the measurement of the duration of sounds, syllables and words in Spanish; they resulted in the formulation of general and specific quantitative laws by Menzerath & de Oleza (1928: 68ff.). The most important ones were as follows (marking as in the original):

“1. The average duration of the sound in the word becomes *smaller*, when the number of sounds in the word *increases*.” (68)

“4. A sound becomes *shorter* when the number of syllables of the word increases.” (70)

“6. The average duration of syllables in general *decreases* when the number of syllables of the word... *increases*.” (71)

“9. The average duration of a word *increases* when the number of sounds in a word *increases*.” (73)

This is how Menzerath and de Oleza deduced that Spanish words with longer durations tend to contain shorter syllables and sounds, with few statistical variations depending on the position of the accent (Menzerath & de Oleza 1928).

However, it was not until 1954 that the so-called *Menzerath's law* would be established and generalized in linguistics through the work *Die Architektonik des deutschen Wortschatzes* (Menzerath 1954). Menzerath proposed this as a principle of general linguistic economy according to which “the larger a construct, the smaller its components”. This 1954 work is often cited as the origin of Menzerath's law, though this actually dates back to the *Spanische Lautdauer* of 1928. Only in a few cases is the origin of Menzerath's Law connected to his presentation at the First International Congress of Linguistics of Leiden (1928), at which time he already had the results of the experimental study of Spanish (Menzerath 1928). As is well-known, since the *Spanische Lautdauer* more than fifty years passed until Gabriel Altmann (1931-) formalized Menzerath's law mathematically in his *Prolegomena to Menzerath's Law*. Altmann's formalization is commonly known as the Menzerath–Altmann Law (Altmann 1980).

Finally, we will never know if the contribution of de Oleza in the *Spanische Lautdauer* is a mere anecdote in the history of quantitative linguistics, or whether his contributions were substantial. The subsequent trajectory of Paul Menzerath suggests that the contribution of de Oleza could have been secondary; however, it may be that de Oleza, in addition to serving as a native informant, made some relevant contributions at least in the reflections about the phonetics of Spanish, of which he was an expert, as some of his letters confirm (Iglésias 2007). De Oleza's academic career was cut short at that point, so we may never know the magnitude of his influence.

With regard to de Oleza's biography, after he finished his thesis there were very difficult years for him, due to various reasons. First, he was ostracised for being a Catalanist, then persecuted for being a Jesuit, and finally only tolerated during the Franco regime. So in 1928, he had to return to Veruela – in the midst of the dictatorship of Primo de Rivera – in order to continue his evangelizing task and to train junior Jesuits. Although *a priori* he was not suspected of radical Catalanism – as he was a son of a soldier and a Spanish-speaker – his thesis on Catalan linguistics and his participation in the OR with Father Calveras, S.J., could have been the reason why the order sent him discretely to Veruela. Then, he had to move – first to Bollengo (Italy) and then to the Netherlands, both during the Spanish Second Republic, and during the Spanish Civil War (1936–1939) – taking with him the junior Jesuits he had been educating in Veruela. One needs to bear in mind that the Second Republic devised a new Spanish Constitution that abolished the *Compañía de Jesús*, and Jesuits were persecuted in Spain as a result of that.

The Spanish Civil War and the arrival of Francisco Franco's dictatorship ended the OR and any possibility of studying Catalan linguistics in Spain, but restored the *Compañía de Jesús*, which had been banned during the Republic. De Oleza returned to Valladolid initially and then moved to Barcelona, where he taught at a secondary school run by Jesuits (Sagrat Cor de Jesús<sup>10</sup>). In the following years, he channelled his passion for linguistics into practically the only thing that was probably within his reach – he published several Greek and Latin grammars of pedagogical and scholastic scopes (De Oleza 1942a, 1942b, 1945a, 1945b).

With humility, he taught students at secondary school and new Jesuits until 1952, when he was already 65 years old, at which time he volunteered to go to work for the Bolivian Jesuit missions. After many years humbly devoted to teaching, this was possibly the beginning of a new stage of his life. He settled first in the parish of the *Compañía de Jesús* in Cochabamba (Bolivia), and then in the *Colegio de Sucre*, a Jesuit school in the city of Sucre. His insatiable curiosity, intellectual interest in languages, and mission led him to learn Quechua, so that he could preach, take confession, and teach the native population. Not surprisingly, he followed with interest the Inter-American Indian Congress held in La Paz (1954) and, in 1955, he prefaced and revised a Quechua grammar and Quechua-Spanish Dictionary developed by the Jesuit missionaries Joaquín Herrero and Jorge Urioste (Herrero, de Oleza and Urioste 1955).

From 1960 until his death in Cochabamba on September 6th, 1975, Father José María de Oleza continued to teach languages, Gregorian, and liturgy in the novitiate and house of studies of the parish of Santa Vera Cruz. At the end of the obituary that the Jesuits dedicated to de Oleza (Jesuitas Bolivia 1975), one reads: “Those who knew him bear witness to the simplicity, humility, optimism – to all proofs and a good humour of this wise man, excellent religious, and fellow traveller.”

**Antoni Hernández-Fernández** (antonio.hernandez@upc.edu, Univ. Politècnica de Catalunya) & **Ramon Ferrer-i-Cancho**, Barcelona (ramon.ferrericancho@gmail.com, Univ. Politècnica de Catalunya)

---

<sup>10</sup> The school is still active: <http://www.casp.fje.edu/>.

## Acknowledgements

Firstly, we would like express our sincere gratitude and indebtedness to fathers Francesc Casanovas, S.J. (*Arxiu dels Jesuïtes de Catalunya*), and Antonio Menacho, S.J., for providing us with crucial advice and materials for this investigation. We are also very grateful to Gabriel Altmann for his encouragement and support. Stuart Semple, Naomi Escabias Potgieter, Michal Místeký and Peter Grzybek's feedback has been crucial for improving the quality of earlier versions. All remaining errors are ours. This research was supported by the grant TIN2017-89244-R from MINECO (*Ministerio de Economía, Industria y Competitividad*; Spanish Government), and the recognition 2017SGR-856 (MACDA) from AGAUR (*Generalitat de Catalunya*).

## **References**

- Altmann, Gabriel** (1980). Prolegomena to Menzerath's law. *Glottometrika* 2, 1–10.
- Arxiu dels Jesuïtes de Catalunya** (2017). *Personal file about José María De Oleza Arredondo*. Supplied by the father Francesc Casanovas, S.J.
- Best, Karl-Heinz & Rottmann, Otto** (2017). *Quantitative Linguistics, an invitation*. Lüdenscheid: RAM-Verlag.
- Brücke, Ernst** (1876). *Grundzüge der Physiologie und Systematik der Sprachlaute für Linguisten und Taubstummenlehrer*. Wien: Druck und Verlag Von Carl Gerold's Sohn.
- Hess, Wolfgang** (1983). *Pitch Determination of Speech Signals. Algorithms and Devices*. Berlin: Springer-Verlag.
- Iglésias, Narcís** (2005). L'Oficina Romànica de Lingüística i Literatura (1928–1936). *Llengua & Literatura: 16*, 289–362.
- Iglésias, Narcís** (2007). *Epistolari de l'Oficina Romànica*. Montserrat: Publicacions de l'Abadia de Montserrat.
- Jesuïtas Bolivia** (1975). José María Oleza Arredondo. *Diàspora*, October 18th, 1975. Supplied by father Antonio Menacho, S.J.
- Menzerath, Paul** (1928). Über einige phonetische Probleme. *Actes du premier Congrès international de linguistes*. Sijthhof: Leiden, 104–105.
- Menzerath, Paul & Lacerda, Armando** (1933). *Koartikulation, Steuerung und Lautabgrenzung: eine experimentelle Untersuchung, Volumen 1 de Phonetische Studien*. Berlín / Bonn: F. Dümmlers Verlag.
- Meyer-Lübke, Wilhelm** (1925). *Das Katalanische. Seine Stellung zum Spanischen und Provenzalischen, sprachwissenschaftlich und historisch dargestellt*. Heidelberg: Winter.
- Navarro Tomás, Tomás** (1918). *Manual de Pronunciación Española*. Madrid: Centro de Estudios Históricos.
- Vargas, Tambor** (2012). Un filólogo, del Rhin a Los Andes. *La Patria, Cultural Magazine "El Duende"*, September 30th, 2012.

## De Oleza's Works

- De Oleza, S.J., José María** (1927). *Zur Bestimmung der Mundart der Katalanischen Version der Graalsage (Codex I.79, Ambrosiana, Milano)*. Thesis advised by Wilhelm Meyer-Lübke. Bonn: Universität zu Bonn.

- De Oleza, S.J., José María** (1928a). Diccionari català-valencià-balear. *Anuari de la Oficina Romànica de Lingüística i Literatura I*: 382–390.
- De Oleza, S.J., José María** (1928b). *Zur Bestimmung der Mundart der katalanischer Version der Graalsage. Inaugural-Dissertation zur Erlangung der Doktorwürde genehmigt von der philosophischen Fakultät der Rheinischen Friederich-Wilhelms-Universität zu Bonn*. Barcelona: Edicions Biblioteca Balmes [This is the only published part of de Oleza's PhD thesis].
- Menzerath, Paul & De Oleza, S.J., José María** (1928). *Spanische Lautdauer. Eine experimentelle Untersuchung*. Berlin / Leipzig: de Gruyter.
- De Oleza, S.J., José María** (1930). Recensió al Diccionari Català-Valencià-Balear (I), *Anuari de la Oficina Romànica de Lingüística i Literatura III*: 340–342.
- De Oleza, S.J., José María** (1942a). *Primer curso de lengua Griega. Método completo conforme al cuestionario oficial de 14 de abril de 1939, año de la Victoria. Preliminares. Morfología. Sintaxis. Geografía. Historia. Prácticas*. Barcelona: Ibérica.
- De Oleza, S.J., José María** (1942b). *Segundo curso de lengua Griega. Método completo conforme al cuestionario oficial de 14 de abril de 1939, año de la Victoria. Morfología. Sintaxis. Prácticas*. Barcelona: Ibérica.
- De Oleza, S.J., José María** (1945a). *Primer libro de traducción griega* de Antonio Guasch, S.J., (1915). Barcelona: Casals. [Second Edition of the original of 1915 by Antonio Guasch, S.J., improved by José María De Oleza, S.J.].
- De Oleza, S.J., José María** (1945b). *Gramática de la Lengua latina, según el método del P. Manuel Álvarez, S.J.* Barcelona: Ibérica. [2nd edition in 1944. Barcelona: Eugenio Subirana].
- Urioste, S.J., Jorge, De Oleza, S.J., José María & Herrero, Joaquín** (1955). *Gramática de la lengua quechua y vocabulario quechua-castellano, castellano-quechua de las voces más usuales*. La Paz: Editorial Canata.