Introduction

Amado Alarcón & Mar Joanpere Foraster

Origins and aims of the Special Issue[1]

The origin of this Special Issue is the trajectory of an international and interdisciplinary research group (Language & Occupations, based at Universitat Rovira and Virgili, Spain) aiming to study language and work in the framework of international systems of occupational classification. Under the funding of the main research project "Language and Occupations" (CSO2015-64247-P, Ministry of Economy and Competitiveness) and "Language Competences in the Digital Age" (2016ACUP00020, RecerCaixa2016), the research group produces databases linking language to occupations and to original sociological, economic, anthropological and historical research papers, and organizes international conferences and meetings open to international scholars working in related topics. This publication proposal put together relevant and original papers presented at an international meeting held in Tarragona on the 7th and 8th of June, under the title "Language at Work Conference: Research Advances in Social Sciences". More than forty communications were presented and discussed.

The aim of this special issue is to discuss and create new knowledge about how language skills relate to occupations. Although the centrality of the division of labor to social structure has been a major concern in Sociology since the very beginning of the discipline, the relations between language and work have

received relatively little attention in comparison to other social institutions. Even less attention has been given to the most concrete but sociologically relevant case of language skills and occupations. Moreover, the Special Issue incorporates knowledge from linguistics, business organizations, migration, culture and economy, which enrich the debates on language at work.

Work and occupations relations are not a well-defined topic. On the one hand, there are highly standardized systems of occupational classifications with detailed definitions of tasks for more than 800 occupations (e.g. International Standard Occupational Classification, International Labor Organization) which structure both public and private social and economic policies. On the other hand, there are "complex (…) processes through which languages become valued, recognized or ignored when looking for a job" (Flubacher, Duchêne, & Coray 2018: 1), an observation that we believe can be extended to many occupations. The analysis of the complexities surrounding language and occupations is conditioned by: 1) a lack of definition of what precisely are language skills within and across occupations, 2) few socio-historical contextualizations of what is and how the "language part of the work" has evolved (Boutet 2001) and, 3) the multitude of sociological schools of thought addressing relations between skills and occupations.

In the context of social divisions of labor requirements for languages, skills are different for each occupation. This fact contributes to indeterminacy. Not only languages but also literacy (which today is more accurately literacies, in particular numeracy and digital literacy) can be understood as a number of skills (writing, reading, arguing, human-machine linguistic skills…) needed in the workplace. Socio-historic contextualization has brought relevant insights to the academic community about language skills in labor processes. During the industrialization period, the spreading of literacy and linguistic homogenization were two key social processes with significant consequences for social mobility and economic development (Fishman, Ferguson & Gupta 1968; Pool 1972; Gellner 1983; Coulmas 1993). In terms of occupations, craft systems were replaced by Taylorist-Fordist models, splitting workforce according to literacy levels into white and blue collar workers. For blue collar workers, according to Cohen (2009:26), talking on assembly lines was regarded as counter-productive; "silent" and illiterate tasks done by unskilled blue collars allowed direct integration of mass migration within industrial areas in Europe and the US. Nevertheless, under the general label of white and blue collar workers, in contrast to the previous crafts systems, there is a complex system of occupational stratification that was progressively rationalized at private and public levels during the last century. Whereas in the craft system artisans enjoyed the *seigniorage* of tacit knowledge to produce commodities, in

the rationalized industrial system occupation and management have become the depositaries of explicit skills.

The informationalization of society and the economy (Castells 1996), brings new challenges and consequences for the functions of language in these areas and, particularly, in the world of work (Kelly-Holmes & Mautner 2010, Duchêne & Heller 2011; Urciuoli & LaDousa 2013). The role of language in informational capitalism is quite different from the past since the main inputs and outputs of leading companies are now information. Since information is linguistically encoded, informational capitalism makes language central to production processes, which increases language work, requires its workers to have new linguistic skills and produces its own communication jargons, codes and protocols. Language is thus a key component of productivity, employability, wages, and control. First and additional languages, computer languages, numerical systems, scripts or protocols can be regarded as today's working tools that must be mastered by professionals on an everyday basis. Beyond the classical "language industries" whose outputs are books or translations, today's conversations and texts are produced in a wide range of workplaces where they can be understood as the final product of the labor process. Paradoxically, we know that language is recruited across occupations, and that leading IT companies are making huge investments in the linguistic processing of artificial and natural languages. However, exactly how language is objectivized and contributes to productivity within firms remains a "black box" (Grin, Sfreddo & Vaillancourt 2011).

Sociological Approaches to Work and Language Skills at Work

The importance of language in informational capitalism does not itself portray social constructions of language as being valued or ignored by labor markets. This is important since language skills can be both non-rewarded "soft" skills (communicative abilities and/or ethnic attributes), or "hard" skills or technical competences when a certain level of language competence is required for a particular position or occupation (Heller, 2011; Flubacher, Duchêne, & Coray 2018: 4). Attewell's *What is skill?* addresses the question of language as a hard or soft skill within occupations from four distinct sociological notions: positivist, ethnomethodological, Weberian and Marxist (Attewell 1990: 442). In this paper, it is not our aim to show the results of research from each perspective, but it is one way to approach the notions of language skills and occupations.

Positivistic approaches to language skills are based on the measurability of objective social objects, and generally focus on a set of quantitative well defined

"linguistic variables" to test the effects of linguistic diversity on a set of economic variables (wages, unemployment, etc.) using statistical series and econometric or statistical models (Chiswick & Miller 2003; Dustmann 1999; Gazzola & Wickstrom 2016). A few studies use ISEI/SIOPS Scales (International Socio-Economic Index of Occupational Status; International Occupational Prestige Scale) to link occupational status with language skills (Schnepf, 2007; Tsai 2010). A relatively unexplored source of positivistic analysis that requires new techniques can be found in the literature on occupational systems. It contains linguistic definitions for each occupation, such as ISCO (International Standard Classification of Occupations, International Labor Organization) or SOC (Standard Occupational Classification). These are classifications with more than 800 occupations which provide relatively detailed definitions of specific tasks for each occupation, including a skill level at ISCO (Markowitsch & Plaimauer 2009). Nevertheless, occupational classifications that contain quantitative data, such as O*NET (Occupational Information Network of the US Department of Labor) have received more attention due to the econometric models involved in mainstream economics. Also, PIIAC (Survey of Adult Skills) is an excellent tool for providing greater insight into the relation between literacy and occupations (Quintini 2018).

The ethnomethodological approach has made in-depth studies and detailed analyses of language and society, mostly by anthropologists and sociologists. They address the complex ways in which language skills can be deployed in any given occupation, especially in a context of highly competitive sectors and service-oriented production. These studies include a wide range of occupations and skills such as the work of call center operators and their linguistic tools (scripts in the case of Woydack and Jones 2016) or multilingual tourist service workers (Duchêne, 2011). The complexity of the skills involved in their work places reflects the new capitalist occupational needs of workers. The complexity of language skills cannot be understood if researchers use only management experts or managerial information. Thus, understanding the relations between language and occupations clarifies this emic perspective. In contrast to positivistic approaches, the ethnomethodological approach emphasizes that skills are embodied in the workers and the related workplace context, not in the occupation itself. From a public policy perspective this approach can be very useful when designing programs or training for specific groups (for example, social workers, or agents in an employment office). Although this can sound either naïve or positivistic for ethnomethodologists, the main concerns for the whole set of languages and occupations are comparability across a wide range of occupations, sectors and countries, and the systematization of language skills across occupations. A

systematic literature review of ethnomethodological studies on language skills detected across occupations will enable a wider community of scholars and statistical offices to design new sources of data information.

The Weberian approach includes a wide range of research insights into language skills. One of these is the issue of the capitalistic rationalization (efficiency, predictability, calculability and control) of languages within the organizational context. This has proved to be a source of inspiration to the management of languages and has produced a remarkable bulk of research on linguistic organization in multinational companies (Dhir, in this volume), including the various types of worker depending on whether they are internationally mobile and what position/occupation they have in the structure of the company (headquarters-subsidiaries). Another is that each occupation is a marker of a social group and can deploy different levels of skill recognition according to processes of social closure (Parkin 1974; Myers-Scotton 1993, to cite foundational studies). Finally, with reference to the Marxist approach, we need to pay special attention to Weber's concept of control and the role of protocols as linguistic tools. Protocols defining processes and deliverables (the content of a conversation or machine-written reports) may have come about in an attempt by bureaucracy to stifle a potentially Hobbesian state and/or to pursue equality among citizens, but, at the same time, most professions (physicians, police, educators, etc.) are being subject to different degrees of protocol "dictatorship", which limits or conditions their professional status (Berg, 1987; Martin, et al. 2017).

The Marxist approach to language skills focuses on the value of language work and its exploitation by capitalist production, a process in which workers lose contact with the market (the buyer) and the product is not their own personal creation but a floor-plant aggregate or abstract labor. Employees buy skills and time as a form of labor power, and obtain a surplus from concrete labor. Although capitalists cannot accumulate natural language, machine-language-technologies can be regarded as cumulated capital. In the sense that it buys working time and a 'bundle of skills', the process of exploitation is basically no different from that of mental and physical skills (Block, 2013; Uricoli 2008; Cameron 2005). Exploitation is a type of social relation, and it is the human being (or a social class) who is exploited, not a particular abstract skill. Under this perspective, Alarcon, Heyman, Di Paolo and Morales (2014) point out that language skills are a manager's indicator of value creation for call centers not ethnolinguistic attributes of workers as a marker of exploitation. In this equation, language skills transform labor power into concrete labor by means of a capitalist objectivation process designed to deskill the labor force and, therefore, reduce the exchange value (wages) of workers and the problem of turnover, and increase the power

of management over a deskilled workforce industry. For Marxists, wages depend more on socio-historic balances between capital and work than on the skills themselves (Del Percio, Flubacher & Duchêne 2017; Holborow 2018: 6). A challenge to the Marxist approach is that there are a number of occupations in which the personalization of service (face-to-face encounters between worker and client) makes it difficult 1) to objectivize work ("no two interactions are the same"; and 2) for workers to describe themselves as "language workers" (for the case of call centers, see Woodcock 2017: 73), since "language worker" is far from being considered by workers as an occupation in itself.

Contents of the Special Issue

This special issue brings together scholars engaged in research on language skills and occupations and their implications for broader social and economic concerns, including social and economic inclusion, job security, lifelong learning, unionization and gender inequalities.

The complexity of the language skills required by occupations is studied from an emic perspective in the paper by Karin van der Worp "Languages at work in the Basque Autonomous Community". The author describes the presence of the local minority language (Basque) in the workplace after recent language policies and analyses the perceptions of professionals and future professionals about this "glocal" linguistic repertoire in the workplace of the Basque Autonomous Community. Daniele Mazzacani analyses whether compulsory education affects the foreign language proficiency of European native adults in his "Foreign languages for the labor market: an analysis of the role of compulsory education in Europe". He finds that being taught foreign languages during compulsory schooling has positive effects on the probability of knowing them ranging from 3 to 5 percent. In their paper entitled "Language and Witchcraft as a Trade: Insights from, Machakos County, Kenya", Gatitu Kiguru, Phyllis W. Mwangi, Purity M. Nthiga and Caryn Kimuyu discuss the language used by witchdoctors in Machakos County in Kenya, and views on witchcraft. They also explore the socio-psychological factors governing how witchdoctors use language. Finally, Johanna Woydack draws on long-term ethnography and interviews, to investigate language work and language management in the context of a multilingual call center in her paper "Language management and language work in a multilingual call center: An ethnographic case study".

A number of articles deal with politics, power, resistance and credentials. Lisandre Labrecque contributes an article entitled "Privilege and exclusion, resistance and democratization: The multiple power effects of multilingualism

at the workplace" in which she analyses how everyday conversations reveal the great normative preoccupations of societies, both in their themes and in their modalities. From the same perspective, "From resistance to "bricolage": Forms of 'power to' get active and create possibilities in multilingual organizations" by Claudine Gaibrois investigates the largely ignored effects of multilingualism on productive power in professional contexts, by re-analyzing data from a case study conducted in Switzerland. And finally, from the political perspective, Ilona Delekta contributes the paper "Political correctness and linguistic creativity in the job market. How much do they (mis)inform?" on approaches to political correctness (PC) and how it affects work-related lexis.

Readers will also find the key Weberian question of credentials discussed in the quantitative analysis by Francisco Javier Mato, Rodolfo Gutiérrez and María Miyar-Busto. Their paper "Immigrants' educational credentials leading to employment outcomes: The role played by language skills" focuses on the role played by Spanish language skills in the labor integration of migrants in Spain, given that about half of the immigrant population has Spanish as their native language, and the other half engage in language learning activity. The authors also analyze how female immigrant workers obtain higher employment returns on their educational resources than men in terms of avoiding very low-skilled jobs. In a Spanish article, entitled *Las ocupaciones laborales en función de los requisitos de competencias lingüísticas: una categorización mediante redes neuronales artificiales [Occupations as a function of language-skill requirements: a categorization through artificial neuronal networks]*, Carmen Molina, Teresa Sorrosal and Antoni Vidal use neuronal networks to divide occupations into various categories according to the language skills they require. Stephanie Cassilde and Kelly Labart developed "A Pluri-Ethno-Linguistic Fragmentation Index" to measure the probability of two random individuals belonging to the same group. It provides greater insight into the repercussions of the coexistence of several languages in a society.

Last but not least, Krishna Dhir, a well-known international scholar, explores the role of language in the creation of corporate social capital and offers an approach to overcome the difficulties involved in his article entitled "Contribution of language in the creation of corporate social capital". The article suggests that multinational corporations should hold a portfolio of language skills, much as they do a portfolio of currencies. In her contribution, "Integrating corpus-based tools into translators' work environments: cognitive and professional implications", Sandrine Peraldi examines resistance and success factors with a view to encouraging the progressive integration of concordances into the work of legal/financial translators.

Acknowledgements

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