Editorial

Interdisciplinariety: A perspective from the dynamics of scientific production and communication

In his six-volume "The University, studies on its origins, dynamics and trends" ["La Universidad estudios sobre sus orígenes Dinámicas y tendencias"], Borrero (2008) states that interdisciplinariety can be understood in two semantic sets. On the one hand, it refers to a set of specific attributes that permit an account of the relationships between sciences and disciplines; on the other, it is the relationship between disciplines and the distinction with everything that is mono-disciplinar (Borrero, 2008). As such, the multidisciplinary (juxtaposition of disciplines) implies a set of assertions of epistemological plurality, discontinuity, relative autonomy, theoretical integration, epistemological affinities, and in the end it is an imperative "stemming from the evolution of science itself" (Borrero, 2008, p. 267). Recently, Uribe-Mallarino (2012) in her book entitled "Interdisciplinariety in today's university: reflections and case studies" ["La Interdisciplinariedad en la Universidad Contemporánea: reflexiones y estudios de caso"], affirms that interdisciplinariety is internationally defined around concepts such as collaboration, hybridation, complexity, integration, transversality, and problem solving.

In a recent study, Larivière, Haustein, & Börner, (2015) explored the subject from the perspective of published research and have analysed the type of collaboration of over 9 million documents between 2000 and 2012, in order to find evidence of interdisciplinariety in scientific output, starting with its production. It seems evident, both from external works and from our own research, that there is enough evidence to confirm the relationship between cooperation and impact on citation and how knowledge production seems to configure communities that interact and influence the type of knowledge production, which results in endogamies (Garcia, Acevedo-Triana, & López-López, 2014; García-Martínez, Guerrero-Bote, Hassan-Montero, & Moya-Anegón, 2009; Guerrero Bote, Olmeda-Gómez, & de Moya-Anegón, 2013; López-López, de Moya Anegón, Acevedo-Triana, Garcia, & Silva, 2015).

However, the question for the relationship between content type and citation impact seems very relevant but there is little research on it. This is why the study by Larivière et al., (2015) is so relevant. The study found a consistent relationship between interdisciplinary publication and a higher level of citation; that is, interdisciplinary output is more likely to be cited than disciplinary output. Even though this might seem obvious, it is not at all, because the analysis to be performed is not limited to citation and number of authors. For example, the authors refer to the set of disciplinary relationships and the form of participation; the describe the disciplines that come close and hybridate and those that are far apart; which are the information flows amongst disciplines.

In this way, this exhaustive work shows how areas like humanities, with very low interdisciplinary relationships, has low citations in comparison to other areas. This marked trend should generate multiple disciplinary questions, such as the types of knowledge uses in other disciplines and the im-

plications of the interdisciplinary entanglements that are in the end an indicator of external validity of knowledge, in which diverse areas can converse. Other questions should be asked around the isolation of other disciplines and the consequences that these disciplinary monologues have for academic dynamics. (Lachance & Larivière, 2014; Larivière et al., 2015; Lariviere, Sugimoto, Tsou, & Gingras, 2014; Porac et al., 2004)attend different conferences, and publish in other venues; they might speak a different scientific language and value an alien scientific culture. This paper presents a detailed analysis of success and failure of interdisciplinary papers-as manifested in the citations they receive. For 9.2 million interdisciplinary research papers published between 2000 and 2012 we show that the majority (69.9%.)

Evidently, knowledge in Psychology is interdisciplinary in many ways, and yet we still have a long road ahead to work and show an evident relationship in epistemological, methodological and output terms with other areas. It is a debt we have with the discipline and with others, along with the implications on disciplinary knowledge construction. Surely the theoretical discussions on interdisciplinariety and the relationships between psychology and other fields of knowledge will be enriched by analyses that will help us accurately elucidate the uses made of knowledge from other areas by researchers.

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