

Multilevel networks and status attainment

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ABSTRACT

Through Nan Lin's social resource theory, network studies have demonstrated the importance of personal contacts for status attainment. Achieving better occupations, wages, or social prestige depends not only on individual skills and personal resources, such as social class or human capital. Personal networks are also important structural factors because they provide access to social resources that are critical to careers, such as information and social support. Today, new research angles emerge from analyses of multilevel networks (AMN) on additional structural factors that are important for status attainment: the advantages of belonging to powerful and prestigious organizations and accessing through them complementary forms of social capital. From a series of AMN studies on one elite group of researchers, the importance of these structural aspects for professional careers emerge through concepts such as 'dual positioning' and 'dual alters', offering hypotheses that complement Nan Lin's theory in each of its postulates. Taking these hypotheses into account, the article formulates a model for the study of status attainment consisting of four arguments: (1) individuals' initial positions, (2) access to social capital, and the impact of its (3) mobilization on (4) socioeconomic returns. The article discusses the analytical strategies that emerge from this model, opening up new prospects for investigating the role played by social networks in status attainment.

1. Introduction

How individuals acquire their status over time is a question of major interest in life-course research. It is an issue at the heart of the agency-structure debate, the study of cumulative advantages and social mobility (Dannefer, 2018; Shanahan, 2000). The term 'status attainment' often refers to the social position individuals obtain in the labour market: a status 'acquired' over time through changes in jobs, earnings and social prestige, which is often the result of complex structural phenomena (Haller & Portes, 2019; Marsden & Hurlbert, 1988). Since Blau and Duncan's study (1967), scholars have highlighted the weight of individuals' characteristics, such as gender, ethnicity, family background and class differences for status attainment (DiPrete & Eirich, 2006). Personal skills certainly play a role, but entering the labour market with a good *initial position* provides individuals with more resources, which they can use to their advantage to navigate labour transitions and turning points. But while the weight of ascribed characteristics has been mitigated by increased access to higher education (Becker, 1993), a further structural factor that has revived the debate is the weight that

social networks play in status attainment (Chen & Volker, 2016).

Research on social networks and status attainment was already well advanced in the 1990s (Lin, 1999). It helped to understand that, in addition to personal characteristics, in many socio-economic contexts a key role is played by 'who people know' (Bourdieu, 1986; Lin, 2000, 2001 on the definition of social capital). How and why networks play such a role in status attainment is explained by three propositions that make up social resource theory (Lin, 1999). The first proposition states that (1) networks provide resources, such as information and social support, that facilitate individual action. Accessing and mobilising better resources, conceptualized as social capital, increases the chances of improving socio-economic standards over time (e.g. obtaining higher paid and more highly skilled jobs). Secondly (2), social capital is linked to the social position of the actors. In essence, 'who people know' depends on social class, gender, ethnicity or human capital: networks often mirror these characteristics through homophily, which exacerbates social inequalities (McPherson, Smith-Lovin, & Cook, 2001). Finally, (3) the third proposition postulates that the use of weaker ties increases the chances of networks improving social status. This is because, since

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Granovetter (1973, 1985) and Burt (1992) seminal studies, we know that weak ties provide individuals with access to structural opportunities beyond their immediate environments.

These propositions frame well the role played by personal networks on status attainment, but as we discuss in this paper, further advances are possible by integrating into them the conceptual elements of analyses of multilevel networks (AMN). Indeed, studies of multilevel networks shed light on a more complex relational scenario than personal (egocentric) networks, reconstructing how individuals are connected across organizations (Lomi, Robins, & Tranmer, 2016; Moliterno & Mahony, 2011).¹ What emerges from this research is a view of individuals as embedded in individual and organizational networks, through which they access resources complementary to their personal resources and their social ties (Breiger, 1974, 1990; Lazega, 2020a). In achieving their professional attainment, this perspective suggests, actors navigate their trajectories not only as individuals, but also as members of organizations (Brailly, Favre, Chatellet, & Lazega, 2015; also Levy & Bühlmann, 2016 on *life-course institutionalization*). In this way individuals acquire a multilevel status, that Lazega and Jourda (2016) called 'dual positioning', allowing access to infrastructure, institutional prestige, or organizational alliances that are important in the acquisition of complementary forms of social capital (Lazega, Jourda & Mounier, 2013). From this, as we argue here, formal properties emerge that extend social resource theory in each of its propositions, thus offering ideas for constituting models of status attainment that may innovatively address the structural influence of multilevel networks.

The article discusses these aspects through three sections. In a first section, we outline the main theoretical elements of the literature on social networks and status attainment. In doing so, we explain social resource theory in more detail, discussing the three propositions that comprise it and the lines of research that stem from it (Chen & Volker, 2016; Lin, 1999, 2000, 2001). In the second section, we disclose the conceptual elements of AMN which help revisit these three propositions. To do so, we describe the results of a series of studies that highlight the structural effects of multilevel networks on the performances and careers of a group of elite cancer researchers in France (Lazega, Jourda, & Mounier, 2013; Lazega, Jourda, Mounier, & Stofer, 2008). We extrapolate the general properties that emerge from this research and formulate new hypotheses on the structural effects that multilevel networks have on careers. In a third section, we operationalize these hypotheses through an analytical model of status attainment consisting of four arguments: (1) initial social position, (2) access and (3) mobilization of social capital as explanatory factors of (4) status attainment. This allows us to discuss the analytical strategies that emerge from this model and the contributions of this paper to the study of social networks and status attainment.

2. Networks and status attainment: from personal resources to social resources

Status attainment is the result of processes that straddle agency and structure (Settersten & Gannon, 2005). On the one hand, research has placed a major emphasis on the importance of ambition and cognitive ability for achieving better wages and career opportunities (Adkins &

¹ Unlike the egocentric view, where networks consist of a focal person ('ego') and his or her direct contacts ('alters') (Vacca, 2018, p. 34), a multilevel network is a collection of individuals and collective actors (groups, organizations, teams, etc.) within a given social boundary, such as an organizational field. Individuals are connected within the organizations with which they are affiliated, and these organizations, in turn, are connected by forms of cooperation and competition due their institutional needs (Paruchuri et al., 2018). Examples of networks of work teams and firms, farmers and farms, students and schools, etc. can be found in *Multilevel Network Analysis for the Social Sciences: Theory, Methods and Applications*, edited by Lazega and Snijders (2015).

Vaisey, 2009; Burger, Mortimer, & Johnson, 2020; Haller & Portes, 2019 on the so-called Wisconsin model). On the other hand, the social sciences test models taking actors' exposure to structural opportunities and constraints more into account as explanatory factors in status attainment (DiPrete & Eirich, 2006; Ferraro & Shippee, 2009).

Regarding these structural aspects, on which we focus in this text, Blau and Duncan (1967) historically distinguished status attainment as a function of individuals' ascribed or acquired characteristics. Gender and ethnicity were already being ascribed characteristics of fundamental importance in the 1960s (DiPrete & Eirich, 2006). Even today, ascribed characteristics such as social class and the family's socio-economic status are central to understanding what link individuals' social positions, personal resources and socio-economic attainments (Crompton, 2010; Lai, Lin, & Leung, 1998). However, research down the decades has shown the increasing importance of the characteristics that individuals acquire over time, such as educational attainment, which is among the most important factors (Becker, 1993), but also the 'goodness' (occupational category) of prior jobs (Wegener, 1991). The literature explains that ascribed and acquired characteristics provide individuals with personal resources to navigate their trajectories over labour-market segments, the specifics of which are also of fundamental importance for understanding status attainment (Chua, 2011, 2012; De Fruto, 1993).

2.1. Beyond personal resources: the importance of social resources

Research on social networks has explained that there is a further type of resource that has an impact on status attainment: resources that individuals do not possess, such as personal resources, but which nevertheless have an effect on their careers. These are resources such as information, influence, support, advice or knowledge, to which individuals potentially have access through their contacts. These social resources are understood as social capital embedded in personal networks (Bourdieu, 1986), which consists in a further source of inequality for status attainment. In particular, individuals have access to social resources through mechanisms, such as homophily and transitivity, that link people in similar social positions. A worse initial position, e.g., being part of a low-class family, will connect disadvantaged people with other disadvantaged people, thus giving access to poorer social resources (e.g. information on poorly paid jobs) and often leading to worse occupational outcomes (McPherson et al., 2001; Smith, 2000). These mechanisms make networks a further source of exposure to opportunities and constraints (Lin, 1999, 2001).

Lin (1999) social resource theory, as mentioned in the introduction, formalizes the postulates underlying the structural effects personal networks have on status attainment. First, a general proposition is formulated: (1) the social resources hypothesis. Models of status attainment should not only test the importance of personal resources, but also the causal effect of social resources. Thus, scholars should not only take into account people's position in social hierarchies, that is, their social class and human capital, above all, but also the influence of their access to contacts (often referred as 'alters' in network research). This hypothesis roots this literature by assuming that networks exert a significant effect on achieved status beyond that accounted for by personal resources.

The second proposition is the so-called (2) strength of social position. It assumes that access to social resources is linked to the social hierarchy actors occupy at a given point in their trajectory. This postulate therefore goes beyond the importance of social resources as such, reflecting on how their access is influenced by status and personal resources. As explained by the 'like-me hypothesis' and the homophily principle, personal characteristics such as social class or human capital have an impact on the accessed quality of social resources (Homans, 1958; McPherson et al., 2001). By building relationships with those who occupy similar social hierarchies, people in advantageous positions acquire better resources, and vice versa (Lin, 2000; Smith, 2000). This

mechanism is assumed to have a significant impact on the attainment of status, thus explaining inequalities across social groups (Lin, 1999; DiPrete & Eirich, 2006).

The third proposition is the so-called (3) strength of ties. Based on Granovetter (1973, 1985) and Burt (1992) studies of structural holes, this postulate assumes that access to weaker ties increases actors' exposure to structural opportunities and thus to their chances of achieving better occupational outcomes. This does not make the implicit assumption that strong contacts are not important during professional careers. On the contrary, in specific socio-economic contexts, especially in unskilled sectors, strong contacts may play a major role (Maya-Jariego & Holgado, 2005; Smith, 2005). However, Lin's original intention is to shed light on the benefits of accessing social resources through what he calls the extensity of ties. The more an individual is able to reach areas of the social space that are distant from his or her immediate environment, the greater his or her ability to access otherwise inaccessible opportunities. In this sense, weak contacts are important because they provide a bridge out of the closest social worlds (Lai et al., 1998).

These three propositions formalize studies based on social resource theory that began to flourish as early as the 1970s and that now represent a well-established field of research (Bian, 1997; Bian, Huang, & Zhang, 2015; Chen & Volker, 2016; De Graaf & Flap, 1988; Granovetter, 1973; Lin & Ao, 2008; Son & Lin, 2012; Son, 2013; Vacchiano et al., 2018). This literature has been primarily concerned with discerning the links between (i) the initial social position of individuals, the (ii) social resources that, as a consequence, are accessed through networks, and their effects on the (iii) status achieved. Research has tested models that focus either on simple access to social resources (accessed social capital) or their mobilization, i.e. their use during employment trajectories (mobilized social capital). Overall, Chen and Volker (2016) caution that further studies are needed to understand how social position, social resources and status are causally linked over time.²

3. Beyond social resources: AMN and complementary social resources

Evidence has emerged from AMN of an additional type of resource that exerts a structural influence on status attainment: resources that derive from the organizations to which actors belong and the organizational networks in which they are immersed. This emerges from studies by Lazega et al. (2013) on cumulative (dis)advantages during academic careers (on this subject see Merton, 1968). By studying the performance of elite cancer researchers in France between 1996 and 2005, what emerges from this research is that it is not only personal and social resources that are important for academic success: the centrality and prestige of research laboratories also plays a role. On the one hand, laboratories offer researchers their institutional status, positioning them in the scientific world beyond their individual status (what is called 'dual positioning'). This gives researchers complementary access to social capital (through indirect contacts called 'dual alters'), which does not depend on their social ties, but on the organizational network of their laboratories. As we discuss, these mechanisms not only indicate their relevance to academic careers, they can advance social resource theory in each of its propositions, as well as the study of status attainment in other professional fields.

² Mouw (2003, 2006) questions whether the influence of personal networks is causal or only spurious. Once homophily is taken into account, Mouw asserts, networks are simple intermediary mechanisms between social hierarchies and job outcomes. Lin and Ao (2008), in response to these studies, have shown that, even when the moderating role of homophily is considered, the impact of networks is significant.

3.1. 'Little Fish in Big Ponds': the strength of dual positioning

A first contribution to social resource theory comes from the idea of dual positioning. Lazega and colleagues reconstructed the multilevel network of 127 elite researchers and their laboratories, which the authors refer as 'fish' and 'ponds' using typical multilevel terminology (Brass, 2000; see also below, Fig. 1). Being part of a laboratory ('a pond'), this research suggests, provides researchers with a multilevel status, which positions them in the scientific community beyond their personal prestige. This gives them access to a complementary structure of resources: infrastructure, reputation and, not least, forms of social capital. Indeed, belonging to a 'big pond' provides researchers with a wider institutional network, giving them access to resourceful contacts ('dual alters'), albeit in an indirect way. Access to these indirect contacts is thus a function of affiliation with laboratories of different capacity and power. It is researchers with low status in science ('little fish') who are affiliated with larger labs ('big ponds') who benefit from the complementary resources of dual alters. Five years after data collection, it is shown that these 'little fish in big ponds' are more successful than the 'little fish in small ponds'.³

A strength of the dual positioning hypothesis thus emerges. On the one hand, membership in organizations is important as such because it offers material and symbolic resources—prestige or infrastructure—that help individuals achieve status over their professional trajectories (on this subject, see Levy & Bühlmann, 2016). However, what matters more for social resource theory is that access to social capital may depend on dual positioning. While the strength of position hypothesis assumes that this depends on individual status only, dual positioning goes further. It suggests that being part of an organization connects people beyond their personal networks, providing access to complementary social resources embedded in specific kinds of indirect ties (Lazega, 2020a).

3.2. The strength of ties: from weak ties to dual alters

The strength of dual positioning advances the strength of ties proposition (Lin, 1999). When Lazega et al. (2013) showed that researchers who succeeded were affiliated with a powerful laboratory (a 'big pond'), they identified a structural effect on careers that goes beyond individual status. The mechanisms that explain these structural effects, as we have mentioned, are not limited to membership in organizations as such. Dual positioning means that belonging to organizations gives access to complementary social resources—information, projects, funding, recruitment, and manuscript review—that are not only accessible through 'who you know', but through indirect contacts. This, the research indicates, occurs through a complex web of relationships: a first step connects a researcher with a boss within the organization; a second step connects this boss with another hierarchical superior in another organization; a final step connects this last contact with a dual alter. It is by reconstructing this web of relationships that AMN allowed to reconstruct how researchers extend their opportunity structure and access 'complementary' social resources.⁴

In sum, access to dual alters revisits Lin's idea of the extensity of ties. It questions how organizations increase the ability of actors to access areas of social space where newer and more valuable resources flow, thereby increasing their exposure to structural opportunities (Burt,

³ Precisely what results have shown is that one group of researchers were able to improve impact factor scores between 1996 and 2005 much more significantly than others. This improvement, they explain, can plausibly be considered an aspect of the success achieved by these researchers over a ten-year career. A positive and significant effect of access to dual alters on the performances of this group has been tested through stepwise ANOVA models (see details on data and methods in Lazega et al., 2013).

⁴ One mechanism labelled closing a multilevel 3-path (Lazega & Jourda, 2016).

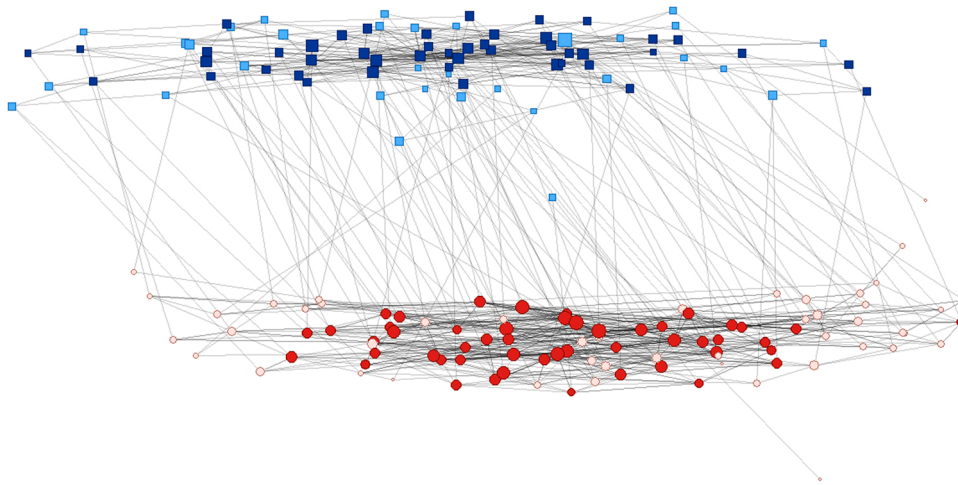


Fig. 1. Multilevel network visualization based on Lazega et al. (2008). An inter-individual network of researchers (circles, bottom of the figure) and an inter-organizational network of laboratories (squares, top of the figure) are visualized, together with affiliation ties for the individuals in the organizations. Dark blue ('big pond'), light blue ('small pond'), red circle ('big fish'), pink circle ('little fish'). Source: Lazega (2020b)

1992; Granovetter, 1973). Indirect ties such as dual alters can in fact be seen as a way of accessing these areas of social space, which Lazega and Jourda (2016) call an extended opportunity structure. The more an individual is able to reach resourceful dual alters, the greater should be his or her ability to access otherwise inaccessible opportunities. Studies by Lazega et al. (2013) tested the effects of this mechanism for the performance of researchers, which they use as an indicator of their career success. As we argue here, further advances are possible by studying the effect of access to dual alters on other indicators, such as job prestige or wages.

3.3. Complementing Lin's theory of social resources with three new hypotheses

In the mechanisms extrapolated from this series of studies, hypotheses regarding the structural factors that affect status attainment emerge. While to date the literature on networks has been concerned with studying the impact of personal contacts, what AMN offers is a different research angle on the importance organizations and organizational networks have for careers. This opens up the possibility of complementing the postulates of social resource theory: what are the effects of dual positioning and complementary social resources for status attainment? Models should not only test the weight of personal and social resources, but also the effect of access to these organizational resources on career outcomes. This provides a general postulate: the complementary social resources hypothesis (H1a).

This first hypothesis has implications for the second and third propositions of social resource theory. First, we have highlighted the emergence of the so-called (H2a) strength of dual positioning hypothesis. It assumes that access to complementary social resources is linked to membership in organizations at T in the professional trajectory, which is assumed to have a significant impact on status attainment at T + 1. As a corollary, the third of Nan Lin's propositions can also be revisited (H3a). If we know that weak contacts allow access to structural opportunities, access to dual alters should be seen as a way of reaching newer and more valuable social resources (an 'extended structure of opportunity'). In Table 1 we summarize Nan Lin's postulates and their revisiting in light of the conceptual elements extrapolated from the AMN study by Lazega, Jourda, Mounier and Stofer (2008, 2013, 2016).

Table 1
Complementing Lin's theory of social resources (1999) through Analysis of Multilevel Networks (AMN).

Lin's original postulates	Hypothesis	Conceptual elements of AMN	Emerging hypothesis
H1 The social resources hypothesis	Social resources impact status attainment, beyond personal resources.	H1a The complementary social resources hypothesis	Complementary social resources impact status attainment, beyond personal and social resources.
H2 The strength of position	Access to social resources are linked to the social position of actors at a point T of their trajectory.	H2a The strength of dual positioning	Access to complementary social resources are linked to the dual positioning of actors at a point T of their trajectory.
H3 The strength of ties	Access to weaker contacts increases actors' exposure to structural opportunities.	H3a The strength of dual alters	Access to dual alters increases actors' exposure to extended structural opportunities.

Table 2
Stepwise model consisting of (1) initial position, (2) access and (3) mobilization of social resources as explanatory factors of (4) status attainment. Argument (1) includes social position (*personal resources*) and dual positioning (*organizational resources*); argument (2) includes access to direct contacts (*social resources*) and indirect contacts (*complementary social resources*); argument (3) includes processes of mobilization of direct and indirect contacts; argument (4) includes socioeconomic outcomes such as occupational attainment, wages and social prestige.

	T	T	T + 1	T + 1
	(1)	(2)	(3)	(4)
<i>Multilevel Network view</i>	Dual Positioning	Access to Dual Alters	Mobilization of Dual Alters	Status attainment
<i>Personal Network view</i>	Social position	Access to Alters	Mobilization of Alters	

4. Multilevel networks and status attainment: an analytical model

With the goal of operationalizing these hypotheses, this section offers an original model consisting of four arguments (Table 2). Each argument includes factors used in research on status attainment, integrating the basic assumptions of both the personal networks and multilevel networks views. The goal of this model is to provide a theoretical framework that integrates these novel hypotheses, reflecting on potential analytical strategies to test them in the context of professional careers. In this sense, the model is designed as a stepwise model. This means that it first proposes a set of starting conditions (an *initial status* at T) and aggregates additional determinants, argument by argument, to add explanatory power about occupational outcomes (*status* at T + 1). In doing so, we combine the need for theoretical integration by offering a more specific model of analysis.

The first argument of the model thus concerns the (1) *initial position of the actors*. In the context of social resource theory, the occupational status at a T point in the career may be used as an indicator of this initial position, as a determinant of status at T + 1 (Chen & Volker, 2016). This operationalizes the *strength-of-position hypothesis*: initial status provides *personal resources* to individuals, thus influencing their access to social capital, and status attainment at T + 1. However, the studies of researchers and research labs suggest that *dual positioning* offers a variety of organizational resources, including access to complementary social capital, that may impact the achievement of better occupations and social prestige at T + 1 (H2a). Testing the validity of this argument does not require AMN per se: where available data include affiliation in organizations at T and status indicators at T + 1, this hypothesis can be tested through standard multilevel models (Klein & Kozlowski, 2000), even in the context of personal network research (van Duijn, van Busschbach, & Snijders, 1999). Beyond occupational status, factors such as social class, gender and ethnicity are all central in defining the initial position of actors (e.g., Härkönen et al., 2016; Smith, 2000). By controlling for all of these determinants, in professional contexts where they have less explanatory power, assessing the weight of affiliation in organizations can shed light on additional structural factors of status attainment.

The second argument considers the impact of the (1) *initial position of the actors* on the (2) *access to social resources*. While access to these resources is often considered through the analysis of personal contacts (*alters*), the study of researchers and research labs suggests that measuring actors' ability to access social resources beyond personal networks may add an explanatory factor of status attainment (e.g., see also Bian, 1997 on the importance of accessing indirect contacts for job outcomes). This is in line with what we have called the *strength of dual alters* (H3a) hypothesis. Reconstructing access to *dual alters* through AMN is one way to ascertain actors' access to extended opportunities that result from organizational networks. Similar to Lazega et al. (2013), in the context of multilevel network research, a viable strategy is to reconstruct the multilevel network of a given occupational segment and test the influence of accessing *dual alters* on individual status at T + 1, e.g., wages and occupational categories.

The third argument concerns the (3) *mobilization of social resources*. Access to *dual alters* can be a structural advantage as such (see Lin & Ao on the *invisible hand of social capital*), or be due to mechanisms that set in motion the transmission of their resources. This means researching how they offer information, advice, social support and other valuable social resources for careers. While it is possible to collect data on the mobilization of these resources for direct contacts—e.g., through tools such as the name generator—studying how this occurs for indirect ties poses some conceptual challenges. Picking up on Burt (2010) arguments, we know that much of the benefit produced by networks should come from direct contacts. However, what the study by Lazega et al. (2013) suggests is that access to specific indirect contacts, accessed by closing multilevel 3-paths, can be particularly beneficial over time. Being

connected to resourceful *dual alters* at T may lead to greater chances of creating social capital (and benefiting from it) at T + 1. This could indicate the ability of organizations to provide contexts for interactions and opportunities for networking (Mollenhorst, Volker, & Flap, 2014; Small, 2009). One possibility is to test this mechanism in a two-stage design. Once the multilevel network has been collected at time T, in a second stage (follow-up) information about the mobilization of *dual alters* (3) can be collected. This would mean understanding whether focal actors have made contact with *dual alters*, e.g., creating collaborations in a professional context, and testing the effects of these social capital creation on status at T + 1.

The fourth argument relates to the socio-economic return that these three arguments have for (4) *status attainment* (T + 1). This can refer to obtaining better jobs, higher wages, and social prestige during one's career due to these explanatory factors. As a whole, the model leaves room for few possibilities to test the effects of (1), (2) or (3) on these types of indicators. For example, while in the first argument the effects of '*dual positioning*' as such can be tested simply through affiliation data, the second and third arguments require the use of AMN techniques to measure access to *dual alters*. This means focusing on a specific labor market segment (as in the case of elite cancer researchers), reconstructing the multilevel networks of this segment, and studying the structural effects of (1), (2), and (3) for individual changes in jobs, wages or occupational prestige at T + 1.

5. Discussion and conclusions

This paper has traced Nan Lin's social resource theory and complemented it through conceptual elements from analyses of multilevel networks (AMN). To date, network studies have focused on the weight that personal contacts have for status attainment, beyond personal characteristics, such as gender, ethnicity, social class or human capital. AMN studies highlight additional structural forces for career outcomes, resources that come from the organizations individuals are part of and from their ability to provide access to *complementary social resources*. This is the contribution of concepts such as *dual positioning* and *dual alters*, which we extrapolated from the study by Lazega and colleagues (2008, 2013, 2016). The paper extrapolates the formal properties from this study, discusses the hypotheses derived from them, and formulates an original model to advance new prospects for investigating the role played by social networks in status attainment. This offers a new research angle on the structural factors that influence career outcomes, with particular emphasis on the role played by organizations and organizational networks.

A first contribution of this paper is that it discusses the value of the notion of *dual positioning* for the study of status attainment. Social resource theory places the emphasis on the individual status of actors, what Lin (1999) calls the *strength of position*. Personal characteristics, such as social class, gender, or occupational category, provide personal resources and access to social capital through personal networks, both important factors in achieving occupational prestige (Chen & Volker, 2016; Lai et al., 1998). The idea of *dual positioning* places the emphasis on affiliation in organizations as an additional structural factor, because it gives access to a variety of organizational resources, including complementary social capital derived from organizational networks. In essence, the question is whether belonging to a powerful organization at time T (*initial position*) influences the achievement of better wages, status and prestige at T + 1? It is this question that is implied by the first argument of our model and that can be tested through data on affiliations in organizations. This should also help measure whether joining powerful organizations shapes processes of social mobility and cumulative advantages beyond the weight of individual characteristics (e.g., Crawford, Gregg, Macmillan, Vignoles, & Wyness, 2016; Dannefer, 2018).

Thus, a second contribution of this paper is to discuss the value that organizational networks have as structural determinants of career

outcomes. Indeed, one of the social mechanisms put in place by *dual positioning* is that it connects people beyond their personal networks, thus giving access to complementary social capital through indirect ties, such as *dual alters*. What is the weight of accessing these additional resources on status attainment? From this we have formulated our three hypotheses, which seem to complement Lin's postulates (Table 1). Access to *dual alters* and their *complementary social resources* may result in benefits to individuals as such (Lin & Ao, 2008) and also indicate a greater opportunity to create social capital over time. By reconstructing a segment of the labour market through AMN, access and mobilization of *dual alters* can be measured to assess its effects on occupational status. This gives importance to testing access to indirect contacts in a longitudinal perspective, that considers the capacity of organizations to offer a context for the creation of social capital (Bian, 1997; Small, 2009).

One major limitation of this article is that it says little about the realities of labour markets and career paths, and addresses structural factors only conceptually. For example, we know that women suffer disadvantages that often prevent them from attaining prestigious jobs (e.g., Bihagen & Ohls, 2006 on the 'glass ceiling'). It is also disadvantageous to enter the workforce with a low-skilled job because this gives access to poorer social resources that can be detrimental for careers (Bolibar, Verd, & Barranco, 2019). Moreover, in lower-skilled sectors the weight of weak contacts has often been questioned, and it seems that access to *dual alters* can say little about how people improve their working conditions (Smith, 2005). More reflection is needed to discuss how multilevel network research may help shed light on such phenomena, to name just a few examples. From a life-course perspective, there are many life events that affect the evolution of occupations. One additional limitation of this paper is that it does not discuss such processes (e.g., Härkönen et al., 2016). The paper offers the simple idea that individuals navigate their careers as members of organizations, and that embeddedness in organizational networks has structural consequences for their status attainments. Hence, it does not contribute to advancing the understanding of how multilevel networks evolve (Snijders, Lomi, & Torló, 2013), but only offers hypotheses to test if status is achieved due to their structural influences.

Overall, a general contribution of this article is that it aims to contribute to the literature on social networks and status attainment by moving beyond the egocentric tradition, which is more widely used in longitudinal studies (Alwin, Diane, & Kreager, 2018; Bidart, Degenne, & Grossetti, 2020; Chen & Volker, 2016). However, the multilevel network perspective shows how new inequalities can be brought to light on individual careers. AMN can help reconstruct opportunities and constraints at the intersections of the macro- and micro-levels, and provide tools to operationalize the weight that institutions and organizations have for careers and, more generally, life courses (Bernardi, Huinink, & Settersten, 2019; Levy & Bühlmann, 2016; Vacchiano & Spini, 2021). In terms of applying our model, as we pointed out earlier, testing how affiliation to organizations affects career outcomes could benefit any research on job prestige. Testing our hypotheses in their entirety, conversely, may benefit research on careers in any specialized industries where access to weak ties may constitute a value: scientists, creative professions, or managers, to name a few examples (e.g., on physicists in Italy in Bellotti, 2012). Hopefully, taking into account the importance of multilevel networks for status attainment will provide new avenues of research to understand further how networks and careers are intertwined.

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