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The materiality of interactions: On the possible usefulness of conversation analysis for the study of social networks

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ABSTRACT

In the domain of social network analysis (SNA), the structure of interactions assumed paramount importance. Despite SNA's acknowledgment that structural elements alone were insufficient and that the content of the interaction was pertinent, it proved challenging to transcend this recognition. Social network analysis posited that to do so, it was beneficial to align with approaches that sought to comprehend the mechanisms underlying the interaction's genesis. To elucidate the issues associated with a purely structural perspective and the necessity for the development of analytical instruments, we employed the trajectory of a seminal concept in SNA: the strength of weak ties. This concept overlooked a pivotal issue, namely the manner in which information and assistance can function within such relationships. This study posited that the association with conversation analysis (CA), particularly through the lens of preference organization, facilitated elucidation of the interactional characteristics that enabled the efficacy of weak ties. The systematic examination of materiality functioned as a microfoundation of SNA.

Keywords: social network analysis; weak ties; conversation analysis; materiality of interactions.

1. INTRODUCTION: THE CONCERN WITH THE STRUCTURE OF RELATIONSHIPS

S OCIAL NETWORK analysis (SNA) has undergone significant expansion in recent decades. Furthermore, in recent years, the notion that this type of analysis also embodies a theoretical approach to social phenomena, which transcends methodological concerns, has been strengthened. It is imperative to adopt a comprehensive approach to the social that acknowledges the significance of connections and the manner in which diverse entities interact with one another. This is due to the fact that social life is not constituted by discrete instances; rather, it is a continuous and interconnected phenomenon.

The prevailing paradigm of "traditional" network analysis is predicated on the notion of connections. The objective is to describe and analyze the network of connections generated between agents. Of particular interest is the relationship between an agent and i, as well as the subsequent relationships to j and other agents. This relationship is represented by a graph or a matrix. The dynamics of the pure relationship, the degree of centrality of a network, or its level of clustering could have effects as such. The specific nature of the relation (Y or Z) is inconsequential. Provided that both possess equivalent mean distances between their respective nodes, the ensuing effects and dynamics would be analogous. The social processes

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would remain constant in the face of alterations in the content of the relation; solely the configuration of the relations would hold validity. This is the formal view of network analysis according to Erikson (2017, 2018): "If two people are in a dyadic relationship with each other, their interactions with be structured by the properties of a dyad" (Erikson, 2017, p. 285).

However, in recent years, there has been an emerging recognition that this purely structural view is inadequate. Accordingly, Erikson has proposed an alternative form of network analysis, termed relational network analysis, which emphasizes the construction of entities through their relationships. This relational approach is more conducive to understanding the processes that generate various forms of interaction. Erikson has underscored the importance of integrating both modalities to enhance our comprehension of social life. Fuhse (2022) has particularly emphasized that relations involve meanings so one cannot establish that between i and j, there is a relation Y without understanding what Y implies. Ultimately, relationships are constituted by the meanings and expectations involved, which are what make a relationship Y and are articulated through meaning. Concrete empirical network analysis is predicated on the content of the interaction. The presence of content, formally established by the subject and codified on the X (formerly Twitter) platform, is a hallmark of all interactions, irrespective of their nature. This content, which encompasses the content of friendships, support relationships, and interactions on X, serves as the foundational element that distinguishes and defines each interaction.

However, merely examining the structure of these relationships may not be sufficient, as a single network representation of a relationship can conceal a variety of underlying processes. As Duxbury (2023) states: "while the same statistics can be calculated on any network panel data set, the meaning of those statistics varies dramatically depending on the empirical context" (p. 22). To elucidate this assertion, it is instructive to draw parallels between economic interactions and verbal exchanges. It is hypothesized that the relationships Y_{ij} and Y_{jk} are present in both cases, indicating that variable i interacts with variable j, which in turn interacts with

variable *k*. In an exchange relationship, a specific item is given in exchange for another. In a conversational network, however, this does not occur because access is gained without the loss of anything. The representation of the network remains constant; that is, the presence of ties remains unchanged; however, the processes that occur within the network are subject to variation due to the distinct nature of the ties.

This recognition is not a recent phenomenon. White's (2008) endeavor to formulate a network-based social theory proceeded in that direction; the concept of catnets suggests that social units are configured, concomitantly, as a category (cat) and as relations (net). These notions have undergone significant expansion, as evidenced by the recent handbook by Rawlings et al. (2023). This handbook underscores the structural nature of the network approach, emphasizing the significance of frames, meanings, and the diverse nature of relationships.

Nonetheless, while this acknowledgment is prevalent, it has been challenging to advance beyond the level of recognition: "the integration of cultural and social network analysis that was called for in the 1990s has not been realized" (Vedres, 2022, p. 432). In a recent study, Basov and Kholodova (2022) have proposed that, in order for this argument to be taken seriously, models are required that: "explicitly incorporates symbolic and material cultural contexts of social ties —as part of the network" (p. 84). It is hereby proposed that a model be developed incorporating three levels (meanings, actors, and material objects). The integration of issues of meaning and culture into the analysis would be facilitated by this model.

In this article, we posit that the challenge in transcending recognition stems from the dearth of associations with tangible analyses of the "materiality" of the interaction, that is, the manner in which it is generated. Recognition is thus constrained to the empirical task of discerning differences between relations, devoid of any further conceptualization: It is acknowledged that the pertinence of content is exclusively for the purpose of substantiating that the correlation between i and j materializes under the specific condition Y (but not under X). It is acknowledged that these types of differences are pertinent to the analysis of phenomena

and that not all network processes occur under all relations. Consequently, homophily has been identified as a prevalent network process. However, it should be noted that heterosexual couple relationships do not align with the principles of the homophily model. The seminal study of adolescent couples by Bearman et al. (2004) demonstrates that this particular form of networking is comprehensible only in the context of a prevailing norm, such as the prohibition against being romantically involved with one's former partner's current partner. This norm, however, does not represent a universal tendency within social networks. However, acknowledging the existence of diverse interaction types alone is insufficient, as the materiality of these interactions exerts a significant influence on the network phenomena themselves. However, in the absence of a theoretical foundation, the scope for further exploration is limited to the acknowledgment of these disparities.

The central argument of this article is that a potential solution to this untheorized situation lies in the integration of SNA with approaches that prioritize the generation of interaction. The deficiency in the development of network theory stems, at least in part, from an insufficient focus on the fundamental mechanics of interaction operation. To illustrate the practical application of this concept, we will examine one of the most well-known arguments in SNA: the notion of the strength of weak ties. It will be demonstrated that, in the trajectory of this argument, there is a tendency to "structuralize" the analysis, which results in the loss of sight of some relevant aspects of the phenomenon itself and the formulation of significant unanswered questions. Secondly, an attempt will be made to demonstrate that these issues can be resolved by examining the manner in which the interaction operates. To this end, an exposition of conversation analysis (CA) as a case of microanalysis will be presented, with the objective of providing foundations for network analysis. Furthermore, an observation will be made of how one of its main results can be used to better understand the dynamics of weak ties. The transition to microfoundations enables the exploration of relationships beyond the recognition of their content aspects.

2. THE STRUCTURAL DRIFT OF THE WEAK TIES ARGUMENT

Network analysis has observed numerous instances in which the effects and the relevance of networks can be identified. However, in general, even when some relatively common effects have been detected, there is an absence of a theory to explain them. While homophily is a prevalent phenomenon, there is no overarching theory that delineates the conditions under which it can be anticipated and the manner in which its endeavors diverge. However, the notion of the strength of weak ties (Granovetter, 1973, 1983) and its evolution can be characterized as a general theoretical process. Our observations are consistent with the findings of research conducted by Kim and Fernandez (2023), although it is not certain that this phenomenon occurs in all instances, as argued by Gonzalez-Heras et al. (2025). Additionally, there is an ongoing debate regarding the conditions under which this phenomenon operates and the underlying processes that facilitate it. Furthermore, this process has led to an increased structural complexity, whereby the variation in tie types has been converted into a variation in network types.

Initially, the effect was conceptualized as a discrepancy in relationship typology. Weak ties are a distinct category from strong ties. A weak tie is defined as a tie that the ego considers less significant, to which it allocates minimal time (Granovetter, 1995). Family or friendship ties are considered strong, while acquaintance ties are regarded as weak. Therefore, the discovery that weak ties could be more useful or efficient, as evidenced in Granovetter's original study on employment, was unanticipated. The question arises as to how weak ties could be more useful than strong ties in a matter as significant as employment. Furthermore, it is perplexing that strong ties with individuals who are most concerned about one's situation would not be as pertinent.

In an effort to elucidate the impact of these affiliations, it was ascertained that a distinction existed in the nature of the network comprising these relationships. The phenomenon of weak ties does not generally result in the formation of clusters, while strong ties are more likely to do so. The presence of relationships between ij

and jk does not necessarily imply a propensity for ik occurrence in weak ties. However, the existence of strong ties does exhibit a heightened likelihood for ik. The concept of the "forbidden triad" is then proposed (Granovetter, 1973, p. 1363). The hypothesis that strong ties tend to close triads while weak ties do not is one that merits further investigation. In algebraic approaches to social networks, where the concept of relationship composition (e.g., "friend of friend," "enemy of friend") is paramount, the notion of weak ties can also be interpreted in terms of relationship structure. As posited by Ostoic (2021, pp. 66-67), the following relationships are possible: "strong tie of strong tie = strong tie," "weak tie of strong tie = weak tie," and if transitivity is weakened (or transitions are increased), the combination of strong ties may result in a weak tie, and the combination of weak ties may not result in a relationship.

In the original analysis, an empirical observation is made: there is a tendency for such a type of tie to have such a network configuration, and that configuration explains the effect, as Lizardo (2024, p. 124) argues, which would be the main empirical generalization. The dimensions are not consistent, as the weak loop is not equivalent to the associated network configuration. However, in subsequent analytical drift, it has been common to define weak ties in terms of that network configuration, thereby rendering the relationship analytical. The notion of weak ties in social networks does not merely reflect real-world configurations; rather, these configurations are defined by the presence of weak ties. As Gonzalez-Heras (2022) observes in relation to the social capital literature, "weak ties and bridges are often used as interchangeable terms" (p. 135). Although the extant literature has differentiated between indicators and predictors of weak ties (Lizardo, 2024; Marsden and Campbell, 1984), this differentiation is not always so clear. In fact, Brashears and Quintane (2018) insist in their review of the concepts of how distinct aspects have been united in a single dimension. That is to say, the frequency of interactions is distinct from capacity (the amount of information that can flow in a tie), which in turn is somewhat different from redundancy (the structural aspect). The article's proposal to clearly differentiate between these dimensions implies that they are often confused.

Burt's (1992) conceptual expansion of "structural holes" proved instrumental in establishing the foundational framework for this structural drift in argumentation. The underlying premise asserts that the phenomenon of conflicting effects arising from weak ties is not inherent to the nature of these ties themselves, but rather, it is a consequence of the relational framework within which they emerge: "the causal agent of the phenomenon is not the weakness of a tie but the structural hole it spans. Tie weakness is a correlate, not a cause. The structural hole argument captures the causal agent directly" (Burt, 1992, p. 28). Weak ties are defined as connections that link actors who would not otherwise be associated, thereby functioning as a conduit between them and facilitating the flow of information and the delivery of control benefits over other actors. Consequently, if Granovetter sought to delineate the weak tie in terms of temporal duration, Burt incorporates the temporal and energetic parameters utilized in a relationship as a component of a more structural parameter: the level of redundancy (Burt, 1992, p. 51). Therefore, as indicated by the concept of weak ties, novel information and opportunities can be accessed, whereas strong ties, which are more redundant, merely offer information that is already available. This structural situation elucidates the observed effect. Subsequently, structural holes and this structural version of the idea have been used to analyze innovation (for a review of the literature and the foundational character of Burt's analyses, see Vedres, 2022).

In the discourse surrounding "complex contagions" as articulated by Centola (2010, 2018) and Centola and Macy (2007), a seminal contribution to the ongoing debates, this phenomenon can be discerned with greater clarity, culminating in the following conclusion: the notion of weak ties is delineated in structural terms: "Granovetter also introduced a second, structural meaning. The structural strength of a tie refers to the ability of a tie to facilitate diffusion, cohesion, and integration of a social network by linking otherwise distant nodes" (Centola, 2018, p. 22). The notion of association evolves into a secondary interpretation of the concept, and in elaborating his theories, Centola prioritizes this secondary interpretation, regarding weak ties as the pivotal element and employing them within the context of that structural

circumstance. Centola (2018) posits that the advantages of weak ties emerge in scenarios necessitating the dissemination of communications. However, the efficacy of weak ties in promoting behavioral changes is contingent upon the presence of strong ties, which, from a structural perspective, appear to be indispensable in such contexts of high clusterability (p. 3). The fundamental distinction between these two phenomena is that while information can be transmitted from a single exposure, behavioral change necessitates reinforcement from multiple sources (Centola, 2018). The argument has become almost purely structural: weak ties correspond to a certain type of contact configuration, and strong ties (or complex contagions) correspond to another.

3. THE CONTINUED RELEVANCE OF THE MATERIALITY OF INTERACTION

However, despite the considerable structural drift, certain issues and questions of the content of the relationship remain in the elaboration of the theoretical argument. To a lesser extent, this is due to the theoretical elaboration of another difference of a material nature that emerged: that between information and behavior. Consequently, the optimal structure for disseminating information is not necessarily the same as the optimal structure for producing behavioral change. The organization of the discussion does not negate the presence of material discrepancies, which remain pivotal to the argument, despite their relative absence from the discourse. In this particular instance, the materiality is not so much inherent in the relation itself but rather in the actions taken in relation to it. The argument itself fails to differentiate between relations of communication and relations of behavior.

Of greater significance, albeit perhaps more subtle, is the fact that in this formalistic drift, the relationships at stake in the original argument are overlooked. It is important to note that, in Granovetter's (1995) original argument, weak ties are indeed very weak. This assertion is supported by Granovetter's doctoral dissertation, which served as the foundation for his book *Getting a Job* (1973). These elements would not manifest as present-tense ties in the majority of contemporary data production techniques

for SNA. The author provides several examples of dormant relationships, including instances in which individuals unexpectedly reconnect with old contacts after a prolonged absence:

These cases illustrate the argument that the ties to those who help one find a job may be rather weak ones. In two of the cases [Granovetter había ilustrado el punto con tres casos], a twenty-year or more hiatus separated one occasion of contact from another. (Granovetter, 1995, p. 80)

To illustrate this point, consider the following example, which is among Granovetter's earliest studies and exemplifies the rapid dissolution of these types of weak ties from a typical network study:

Carl Y. was doing commission sales for an encyclopaedia firm, but was not doing well. He decided he would have to find a different job; meanwhile, he started driving a cab to bring in extra money. One passenger asked to be taken to the train station where he had to meet a friend. This friend turned out to be an old friend of Carl Y's and asked him 'what're you doing driving a cab?' When Mr. Y. explained, the friend offered him the job he now holds —labor relations manager for a small company, owned by his friend. (Granovetter, 1995, p. 34)

As this quote and the reading of Granovetter's original text make clear, this is not a simple information dissemination model, as is discussed later. The present situation is characterized by the following actions: the formulation of recommendations, the initiation of contact with designated individuals, the establishment of new contacts (and, in the aforementioned example, the presentation of a job offer), and so forth. It could be posited that, given the "friend" statement, the action effect could be attributed to a robust bond. However, this would pertain to a "strange" bond, one that is largely overlooked, not deliberately cultivated, and triggered by chance. It would be distinct from other associative bonds and would not be attributable to any specific external factors. Additionally, there are salient issues concerning the materiality of strong ties: Small et al.'s (2024) findings, derived from qualitative studies, suggest that individuals may exhibit

reluctance in engaging in discourse concerning significant and intricate matters with their significant others. This behavior is hypothesized to be motivated by the potential for these issues to compromise relationships that hold substantial importance to the individuals involved. This underscores the necessity of meticulous observation to discern the mechanisms underlying these phenomena and the materiality of the interactions they engender. Failure to do so may result in the inadvertent exclusion of salient aspects that are critical for conducting a thorough social analysis.

It is evident that the "weakness" of weak ties does not stem from a structural issue. A purely structural perspective may overlook the significance of these ties. The observation that weak ties are associated with specific configurations is a noteworthy empirical finding. This assertion must be substantiated through rigorous evidence and analysis rather than merely assuming its validity. Furthermore, the fundamental question remains: by what means can information and support propagate through such tenuous connections? In the context of relationships characterized by minimal commitment, it is noteworthy that information or actions are frequently executed, as evidenced by the previously cited examples from Granovetter's seminal study. This phenomenon prompts the inquiry into the motivation behind individuals' propensity to engage in certain actions, such as recommending, despite the passage of time and the subsequent dissolution of initial contact.

In order to address these inquiries, it is imperative to comprehend the mechanisms through which interaction is established. In order to accomplish this objective, it is imperative to integrate the instruments of network analysis with those methodologies that examine interaction in its own right. Conversation analysis is one such approach; its description is provided in the following section.

4. CONVERSATION ANALYSIS AND PREFERENCE ORGANIZATION

Conversation analysis is defined as a detailed examination of the genesis of interaction; ultimately, "the aim of research in CA is to discover and explicate the practices through which interactants

produce and understand conduct in conversation" (Drew, 2005, p. 75). The approach entails a meticulous examination of the operational dynamics of the conversation, encompassing the methodologies employed by its participants to facilitate its progression. In essence, the focus is on the "trivial, everyday" phenomenon of successful communication, encompassing the ability to engage in orderly conversations that facilitate the execution of daily activities, such as coordinating a meeting, reporting an occurrence, or extending greetings. This accomplishment, far from being mundane, is intricate and demands the execution of a multitude of competencies by its participants. In order to study conversation, an observational approach must be taken to provide a formal and systematic description of the daily operations of conversation.

Conversation analysis yielded repeated results. For instance, the sequential organization of the conversation in turns and the ways in which it was structured and carried out by the agents. For instance, what cues could be employed to initiate a turn, and what was the appropriate response for each turn? This could entail the articulation of a statement, the posing of a question, and the subsequent delivery of an answer, among other possibilities. Each intervention projects a continuation, and the actors use this projection to link their own contribution.

A recurrent theme in these analyses is the orientation, if not precisely collaborative, then intensely "aligned," of the interventions. In order to maintain the flow of the conversation, participants must be attentive and mindful of their interlocutor's actions. They must recognize and respond to the interlocutor's projection of speech from the previous turn. The competencies employed in this endeavor are intricate and pervasive. In an effort to address communication challenges, such as the failure of others to respond to inquiries, individuals employ diverse strategies, including the rephrasing of questions. In the context of human-bot interaction, individuals have been observed employing conversational strategies reminiscent of those employed in human-to-human interaction. However, the efficacy of these strategies appears to be questionable (Dippold, 2023).

This finding contributes to one of the most systematic results documented in the extant literature: the organization of preference and the clear differentiation between preferred and non-preferred responses. "Generally speaking, interactional projects and courses of action are implemented in sequence organization in such a way that + responses (acceptances, grantings, agreements, etc.) are preferred and — responses (rejections, declinings, disagreements) are dispreferred" (Schegloff, 2007, p. 60). Behavioral responses to actions that are aligned with the first speaker are characterized by distinctiveness, ease, and simplicity, in contrast to those involving misalignment.

It is noteworthy that the act of counting as alignment to interactional intention is a rather specific and contextual matter. It is not inevitable that a denial will imply misalignment; if an individual requests information and it is not available, the appropriate response is to state "no" (as Robinson, 2020, discusses and illustrates). In any case, although the concrete form in which this difference in preference is manifested varies, the example seems to indicate that the generalization that interaction processes differentiate actions that show alignment and those that do not, and the former have characteristics that mark a preference valuation, thus facilitating the development of the interaction, is maintained.

5. WEAK TIES IN THE LIGHT OF CONVERSATION ANALYSIS

The ensuing discussion will employ this result to elucidate the fundamental tenets of the weak ties argument, particularly as they pertain to the organization of preference in conversation. It is imperative to underscore the fact that this argument is predicated on the premise that there exist specific responses in interaction that function even in circumstances of extremely weak contact. This suggests that contacts that have remained dormant for extended periods still facilitate the transmission of information and the execution of certain actions.

Asymmetries emerge between aligned and misaligned responses in all interactions. A collaborative approach is often the most efficient and expeditious method for achieving shared goals. In the event that an individual poses a query and, while engaged in discourse, I am

compelled to offer a response that aligns with my existing knowledge, this process entails minimal cognitive and interactional effort. This is due to the fact that I am not required to devise justifications or other rationalizations. Conversely, providing an inaccurate response incurs a greater financial cost.

However, it is important to note that the interactional response generally incurs certain costs for the actor. The act of coordinating a visit to the cinema is inherently linked to the act of attending a film screening, which may not align with my preferences if such coordination is not in place. In responding to a query regarding the route to a specific destination, it is implied that the time allotted for the response must be utilized for that purpose. This may not align with the preferences or priorities of the individual, who might have alternative uses for the time. The level of cost associated with an action can influence the observed effects of preference asymmetry. When the cost is minimal, the effect of asymmetry (i.e., the lower cost associated with the aligned action) is more pronounced, leading to an increased probability of that action being performed (e.g., requesting directions). Conversely, if the cost is higher, the asymmetry effect would be lower, and additional higher incentives would be required. In the context of coordinating a film with another individual, the incentives may encompass either the personal inclination to attend the film or the interest in engaging with the film. In the absence of coordination, preference asymmetry invariably manifests itself. Individuals tend to offer excuses and endeavor to maintain a polite demeanor. It is important to note that the observed asymmetry does not stem from misaligned responses, but rather, from the expression of these responses through different and more complex channels.

In the context of relationships characterized by minimal commitment, individuals may be inclined to furnish the type of information or responses that are perceived as conducive to enhancing those connections. This may entail the provision of contact information or a willingness to utilize recommendations. These levels of response may not be as readily available in the absence of a relationship. For instance, recommending someone entails certain costs and risks; however, a weak relationship suggests a certain degree of affiliation between the participants. This level may be considered relatively low, and it may not be of the utmost importance. However, given the observed asymmetry in preference and the low level of affiliation, it is deemed sufficient. The desirability of an aligned response serves as an adequate incentive. In instances where an old relationship is reactivated, it can be reactivated, and subsequently, a stronger affiliation is reactivated, which allows even stronger actions to be incentivized (e.g., helping in job search or hiring). The generalization of weak ties would thus be a fundamental aspect of spoken interaction.

The association of such relationships with a structural form is another relevant empirical fact that can be explained by the processes derived from the given definition of weak ties. As the "strength" of the tie increases (i.e., more time and energy are devoted to that tie), the opportunities for interaction with others are likely to increase. If relationship ij increases in importance to *j*, then it will interact with *i* more frequently and the opportunities for interactions to form between i and k, given that relationship jk exists, will be greater, resulting in redundant relationships. As the strength of the tie increases, the probability of triad closure increases. Conversely, weak ties do not occur to a large extent, and then bridging relationships (i.e., with no direct tie ik) can be maintained in a stable manner.

However, this association between the type of relationship and the network configuration is an empirical relationship, a product of the consequences of the definition of weak ties in network processes. This association does not constitute an inherent element of the definition. Furthermore, it is imperative to note that this relationship is not a prerequisite for the observed outcomes; it is conceivable that actor j may have relationships with i and k, albeit for disparate reasons, in distinct contexts. Consequently, the augmentation in the strength of these relationships does not necessarily entail an increase in the opportunities for joint interaction. Accordingly, Li (2017) examines this phenomenon by analyzing the integration of family and friend networks in economic activities. It is not uncommon for i to have significant relationships with both j and k, without the necessity of direct connections between

these pairs. The so-called "forbidden triad" is, at best, an unlikely configuration, as Granovetter originally argued. It is possible to have a strong relationship with a coworker or family member without those individuals being connected simply because the types of interaction spaces do not match. Therefore, while the network configuration of weak ties is relevant, it is insufficient to reduce the weakness of the relationship to a purely structural problem. In order to understand the phenomena, it is necessary to consider the nature of the relationships (i.e., their materiality).

This theoretical framework enables the elucidation of fundamental phenomena concerning the deterioration of weak ties, thereby facilitating the discernment of the structural property that is inherent to weak ties. This property is derived from the examination of interactions. The comprehensive structural perspective on this concept has led to the discernment of previously concealed and enigmatic elements, thereby facilitating a more profound comprehension.

What discourse analysis allows is not only a methodological contribution or a way to examine "the details of specific interactions, SNA captures the broader structure of relations within such interactions typically occur" (Crossley, 2018, p. 494). This would render the analyses complementary. The issue at hand is of a more intricate and fundamental nature. In order to comprehend the impact of relationship dynamics on network processes, it is imperative to undertake a thorough analysis of interaction patterns and to employ methodologies that are specifically oriented towards this dimension. Conversation analysis is one such example, but it is not the only one.

6. CONCLUSION

Network analysis has historically exhibited a tendency toward formality and structuring. As demonstrated in the case study on the strength of weak ties, the development of these ties results in their structuring. The initial weakness of the relationship evolves from being a characteristic of the relationship itself, indicated by reduced time investment or perceived relevance, to a characteristic of the network configuration, manifested as the establishment of connections between actors who would not

otherwise be linked. Concurrently, the significance of the content of the relationship is acknowledged.

However, this recognition is often superficial. The analysis does not extend beyond the level of analysis that considers it important to differentiate between the studied relationship Y and the unstudied relationship X. In general, it ceases the recognition of these differences and the attempt to name those that are relevant for analysis. In order to achieve a more profound comprehension of this subject, this article proposes that examining the microfoundations of interaction facilitates a more nuanced understanding of a theory centered on the fundamental concepts of network analysis. This theory posits that social life is understood through interactions and the phenomena they engender. The utilization of the outcomes and frameworks derived from these analyses facilitates a more profound comprehension of network processes. Conversation analysis, defined as the systematic, observational, and detailed study of conversational processes in natural contexts, is a particularly pertinent area of research.

In this article, we employ the concept of "strength of weak ties" as a case study to elucidate this phenomenon. The purely structural perspective had overlooked constituent aspects of the phenomenon, such as the fact that the weakness of these ties could include relationships that had been inactive for years or that it was not limited to disseminating information. Furthermore, it did not address the basis of the phenomenon: that certain communications and actions seem to be very easy to carry out. This phenomenon is not trivial, and CA can provide elements that elucidate these aspects. One of the typical outcomes of the analysis, preference organization, in which responses are aligned with the interactional intention, is carried out in a more straightforward and efficient manner. This phenomenon can then elucidate the "weakness" of the weak tie. On the basis of these findings, the structural consequences of weak ties can be elucidated. This approach circumvents the limitations of a purely structural definition, which is incapable of fully capturing the essence of the phenomenon under study.

In this regard, it may be relevant to recall why the structural idea, the promise that processes are invariant when the content of the relationship changes, has been attractive. The proposed endeavor would facilitate the establishment of a comprehensive theoretical framework that encompasses the social processes under investigation. It has been demonstrated that this phenomenon is subject to inherent limitations, with the material content of the interaction proving to be a salient factor. It is imperative to bear in mind that the aforementioned assertion holds significance for two primary reasons. (1) It underscores the relevance of discerning whether the observed process remains constant when content undergoes alterations. This is not universally applicable, as not all variations in content will inherently demand consideration. (2) In instances where content is deemed consequential, it is insufficient to compile an exhaustive array of content disparities. Instead, there is a necessity to undertake a methodical examination of the mechanisms that underpin interaction production. The generation of a theoretical analysis of this diversity and its connection to network processes is relevant for improving our understanding of social life.

It is imperative to acknowledge that microfoundations do facilitate understanding; however, they are not a prerequisite for this understanding. The findings derived from network analysis maintain their validity even in the absence of utilization. The scientific discipline of thermodynamics was able to develop its fundamental laws using solely concepts associated with macro phenomena, such as heat or work. The molecular basis (i.e., the notion that heat is associated with the movement of molecules) facilitated a more profound comprehension of the implications, though it was not imperative to establish valid laws in that particular field. Analogously, comprehension of the mechanisms underlying photosynthesis can be achieved through analysis at the organism level, whereby its effects are discerned and subsequently linked to evolutionary processes. Comprehension of the biochemical basis facilitates an enhanced understanding of the evolutionary pathways in operation. This understanding signifies a substantial augmentation in our knowledge. Nevertheless, the absence of this knowledge does not render our analysis ineffective. This assertion is equally applicable in the present context: the utilization of microprocesses as

the foundation for interaction, in this instance, conversation, will facilitate enhanced analysis of sociability. However, it should be noted that the possession of substantial results and cogent theoretical justifications is not a prerequisite for this approach.

In this sense, it is not a reductionist strategy that requires a microprocess basis for any higher-level analysis. In any case, the "material" basis of interaction can be affected by other higher-order structures. Conversely, reductionism is not a prerequisite for recognizing the significance of microsocial processes; it is merely necessary to acknowledge that meticulous examination fosters a more profound comprehension of phenomena. Network analysis has been a significant contribution to the development of the social sciences. The objective of this article is to explore this concept further.

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Conflict of interest

The author declares that there are no conflicts of interest.

Statement of data consent

No data were generated during the course of this study. •

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