How to Generate Personal Networks: Issues and Tools for a Sociological Perspective

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Introduction

Since the 1960s, considerable methodological work has been carried out on social network analysis. Using tools called "name generators", its objective has been to establish the most effective methods for drawing up lists of individuals belonging to networks. Literature proposes the use of generators to facilitate the identification of significant persons (Wellman, 1979), individuals with whom we discuss important matters (Burt 1984), individuals with various resources (Fischer 1982), individuals who form "small worlds" (Killworth & Bernard 1978) or individuals with whom we have made different types of contact over a given period (Campbell & Lee 1991, Héran 1988, McCarty et al. 2007). Each tool generates its own type of personal network and has its own assumptions and boundaries. Following a quick review of these tools and their distinctive characteristics, we propose a new name generator to study the link between sociability and socialization. The sociological point of view leads to building large networks rooted in the social contexts of everyday life rather than networks focused on specific kinds of resources or based upon fictive scenarios. A two-step procedure allows us to distinguish a context-based network that gives an idea of a person's global social environment from more specific networks. The discussion of this tool will reveal its principal advantages and limitations.

Tools and issues

Social scientists interested in personal networks have been using name generator tools for decades. In the United States, in a study analyzing the influence of various social categories (ethnic group, religion, employment status.) on interpersonal relations, Laumann (1966) had been using this approach since the 1960s. It asked participants in a survey to name their three closest friends, those they see the most often. In France, the first name generators[1] appeared in 1983, in the survey *Contacts entre les personnes* ("Contacts among individuals") conducted by the INED[2] and the INSEE[3] (Héran 1988, Forsé 1981, 1991), in which participants noted all the individuals with whom they had held discussions over the course of a week.

Why are we interested in personal networks? Among other things, we often wish to discover if in societies in transformation individuals are isolated or receive support from others, if they have access to resources provided by others, or if others influence their behaviour. We might wish to evaluate the social position of individuals. We might also be interested in social integration processes, and monitor changes in the roles of family, friends, neighbours and work colleagues. By studying networks we are also able to raise questions

[1] Previous surveys on sociability had compiled a register of activities involving other individuals, but without specifically collecting names or creating networks.
[2] INED: Institut National d'Etudes Démographiques
[3] INSEE: Institut National de la Statistique et des Etudes Economiques

about their composition, the qualities of the ties and the structure of the system. To answer these questions, all of which can be examined using the social network approach, it is important to select the appropriate tools.

A personal network is the system combining the relationships that an individual (*ego*) maintains with other persons (*alter*). The researcher views the situation from the perspective of the central individual who is discussing his / her relationships in the interview. This perspective is different from that employed in the complete networks approach, which studies a specific and restricted population (such as the pupils in a class), and which considers the links that unite all of its members. In the present paper, we consider only personal networks.

What is a name generator? It is a tool that uses a question or a series of questions to produce lists containing the names of the persons forming an individual's network.

Research protocols vary greatly in terms of the weight given to networks. They vary from broad general surveys containing a sub-set of questions on isolation or social support, as in the *General Social Survey* or the *International Social Survey Program* or in France the *Enquête Permanente sur les Conditions de Vie des Ménages (*Permanent survey on living conditions), to in-depth surveys focussing on networks.

Using names in telephone book's selected pages as an *aide-memoire* for subjects asked to recall the persons they know with such names, Pool & Kochen (1978) reached an estimate ranged from 3100 to 4250 acquaintances. In different Reverse Small World (RSW) experiments, using a list of targets in a fictional small word, between 135 and 210 intermediaries had been selected by the informants (Bernard et al. 1987). According to Degenne and Forsé (1994), studies of complete network give an average of about 5000 persons that the individual knows or ever knew, including (i) less than ten (three on average) close relations, confidants, and persons with whom he discusses important questions ; (ii) about twenty with whom he has regular contact during a given week ; (iii) a few hundred in his or her immediate circle ; and (iv) several thousand people who are latent members of the network. Indeed, the order of magnitude of these networks may vary considerably. Thus, it is necessary to decide beforehand which network is under discussion, and only the research questions and hypotheses may guide this decision and the choice of the relevant name generator.

Each researcher must choose between what is the most efficient (with a reduced number of name generators, of names generated or of secondary questions) and the most accurate representation of what the social actors actually experience (with a wider network, the maximum amount of information on its members and their relationships). Researchers seeking a more complete picture sometimes combine several generators with no overall logic -- each of which having different objectives -- laying the pieces of disparate networks. Keeping this in mind, the search for an exhaustive network is illusory and we should probably abandon the idea of forming a complete picture of an individual's network. Indeed, the exercise generally involves working with a restricted sub-set, whose construction is linked to the research questions (Bernard et al. 1987, Ferrand & de Federico de la Rua, 2005). What we wish to shed light on here is the latter construction and its logic.

Even when the research questions are clearly identified, no single tool fits every question raised; the theoretical assumptions underlying the questions still need to be clarified. For example, if we were interested in the issue of social isolation, we might make use of a

name-generating tool targeting contacts and their frequency: “Name the individuals you most frequently contact”. We could also choose generators allowing us to identify strong links: "Name the individuals with whom you feel the closest". These two methodological choices allow for two hypotheses concerning the social link. In one case, protection from isolation is afforded by frequent contact with various other individuals; in the other case, it is afforded by emotional closeness within a small group.

Questions regarding social support, power, influence or the social position of individuals may use different types of tools: generators of resources or social standing, situational reconstructions. These tools are frequently used in major surveys on populations, as they strike an excellent balance between speed and efficiency. On the other hand, they tell us very little about the people in the individual’s circle.

Certain articles on methodology endeavour to compare the various advantages of these approaches (Campbell & Lee 1991, Marin & Hampton 2007, Marsden 2005). We are proposing a review more focused on the theoretical frameworks guiding the research than on the systematic comparison of the collected networks. This exercise is indispensable to a well “thought out” selection of a relevant tool. We then introduce a new two-step approach allowing us to reconcile an extended and systematic compilation of the person’s circle with the treatment of specific themes.

Types of name generators

We will discuss several major categories of generators in terms of the dimensions they highlight (Marin & Hampton, 2007, Milardo, 1988, van der Poel, 1993). Name generators can be divided into three categories, depending on the approach they support: 1) generators based on interactions: the persons encountered the most frequently, those we meet over a given period or those we phone to… 2) generators based on the importance of certain links: the persons to whom we feel the closest, best friends… 3) generators based on exchange: persons likely to procure various resources for us (tools, information, emotional support, advice…). These categories are not watertight; they are linked to one another, but do not overlap systematically. We need to examine their links.

The interactive network: studying sociability

Researchers in the fields of psychology and medicine have demonstrated that the scope of a personal network reflects the individual’s mental and “social” health (Cutrona 1984, Green & Rodgers 2001, Polanski & al. 1985, Tracy 1990). Consequently, several analyses have adopted as their primary objective documenting an individual’s degree of social isolation or, inversely, his degree of sociability. They maintain that the number of persons in the individual’s circle and, as a complement, the frequency of the individual’s contacts with the members of his network, reflect his level of social health (Charbonneau & Turcotte 2003). Sociologists also focus on interactions in order to compare frequency of social contacts in different populations.

One of the methods proposed for forming a portrait of the interaction-based network consists in using a generator that allows us to identify the persons with whom the individual frequently or routinely interacts. For example, one might ask: “By thinking of all the people

with whom you are in contact (via personal visits, by telephone), are you able to name those with whom you are most often in contact?"

It is also possible to measure a network at a precise moment, using a time-based generator. This is the contact-book method. In France, both the "Contacts among persons" survey (INED and l'INSEE, 1983) and the permanent survey on living conditions (INSEE, 1997) asked the respondents to record in a notebook how they used their time, hour by hour, over the course of a week, and the discussions that took place in each period were noted. It was then asked them to describe their interlocutors in terms of their roles (colleague, neighbour, friend…) (Héran 1988, Forsé 1981, 1991, Godechot 2000, see also Pool & Kochen 1978). The distinctive characteristic of this method stems from the fact that the collecting of information is related to an activity; consequently, it involves a factual criterion. A notebook is more reliable than an individual's memory. In addition, this method is less intrusive, since the respondents themselves fill in the notebooks. There remains the issue of the representativeness of the period selected.

Other surveys have been based on the same principle; some have extended over periods of several months, such as the one conducted in Taiwan by Fu (2007). After three months, the participants in this survey had listed a combined total of more than 100,000 contacts; on average, each participant had 227 network members.

It is also possible to conduct this type of study using address books (paper, telephone, e-mail…). The drawback here is that the address book may contain addresses no longer in use, or consist of a jumble of addresses of every type, including friends, professional contacts and contacts of a purely functional nature (the plumber…). Some people could be missing from the address book, like those who do not use e-mail or a mobile phone (Smoreda & Thomas 2001, Licoppe & Smoreda 2005).

Increasingly, research on contacts is focusing on communication by Internet. This is a very innovative sector of social network analysis, with sophisticated follow-up methods via Internet forums, chat rooms, facebook, etc. An example would be the "Entrelacs" survey conducted by France Télécom (de Baillencourt et al. 2009). These works conclude to ambivalent tranformations: new communication tools change some aspects of networks and relationships, but don't change others.

The limits of this approach

Focusing measures on interactions contains certain risks: a study might ignore persons who are rarely contacted yet play a crucial role in the lives of the individuals. Thus, some of these approaches take up a great deal of time. In addition, the objective details of the network (size, frequency of contacts…) are not the only factors that need to be taken into consideration when isolation is the issue. The latter is not simply an objectively observable fact, but also a situation experienced subjectively by the individual (Charbonneau 2003). Some studies have demonstrated that satisfaction with relationships had as much of an influence on the feeling of isolation as the supposedly objective characteristics of a network (for a review: Charbonneau & Turcotte 2003).

<u>"Significant persons" networks</u>

This type of network is often considered the most important nucleus of social relationships of the *ego*. It includes "core personal networks" (Burt 1984, Marsden 1987), the persons of greatest importance to the *ego* (Wellman 1979) or with the greatest impact on his attitudes, behaviour and welfare (McCallister & Fischer 1978).

Interest in analyses of primary links and significant persons has its origins in the history of anthropology (Mead 1934, Barnes 1954) and of urban sociology, in which various theses regarding the transition from a rural to an urban environment developped (Wellman & Leighton 1979). The social disorganization thesis (Wirth 1938) claims that migration to the city leads to loneliness. Conversely, the "saved community" thesis suggests that individuals who live in an urban environment will focus on a small world recreated as part of their neighbourhood and around family links (Young and Willmott 1957). Wellman (1979) wanted to test this thesis by asking: "On whom can urban dwellers count?" His study, carried out on 845 adults in Toronto neighbourhoods, was based on the use of a name generator drawing on subjective and emotional factors: "Who are the persons outside your home that you feel closest to?"

In 1984, Burt (in work carried out on behalf of the General Social Survey) suggested generating the names of persons in the best position to have an influence on choices, behaviour and paths taken: "From time to time, most people discuss important personal matters with other people. Recalling the last 6 months, who are the people with whom you have discussed important personal matters?" The analyses dealt with only the first five names cited.

This generator of "advisers" differs from Wellman's, though it is interesting to compare both of them (Strait, 2000), to combine them (Bourdon et al. 2007) or to cross them (Bidart 2008). In the Bidart survey, crossing them shows a slight overlap: 78% of the influential persons were important, while only 36% of the important persons were influential.

The limits of this approach

The first limitation, raised in certain methodological articles, involves the definitions of the terms employed. According to Bailey and Marsden (1999), when respondents thought about "important personal matters" some referred to issues in their personal lives (finances, recreation, health), others to work or politics, while others highlighted frequency of contact. The answer depended on what they were talking about or with whom they were in contacts before the survey (Bernard et al 1987). Ruan (1998) has noted that using this question depended on habits of sociability in different cultures. When Ruan asked this particular question in China, it generated networks that were very different from those generated in United States. In addition, the definition of "important persons" could turn out to be vague (Barrera 1980).

Although using a single name generator has the advantage of speed, it induces individuals to remember only the most obvious persons, whereas it may be necessary to prod the memory into searching for significant persons not easily remembered (because they live far away, because the individual has not seen them for a long time, etc…) but who may nevertheless play an important role. This approach also eliminates persons with whom the respondent interacts negatively, but who may serve as important sources for the purposes of comparison (Lefler et al. 1986, Strait 2000).

Single generator approaches are favoured by surveys with very little time to devote to the question of social networks. This being the case, very few major surveys of populations set up questions to actually generate names[4]. Rather, they are often limited to asking if the resources exist, and how many persons are involved.

When the primary objective is to gain time, other approaches truncate the number of names generated -- limiting them to three, five or ten members. This approach is comparatively risky, given that the order of citation may depend on whether one had diner with certain individuals the day before. In fact, the researchers do not know whom they are eliminating nor why, nor which is the reference group of significant others.

Exchange and support networks

There are many social support studies using the social networks approach, especially in the fields of psychology, medicine and social work. The concept of social capital is central to this focusing on the flows of ressources as structuring the social life. The method involves describing an individual's greater or lesser access to resources. The latter are generally material, instrumental or informative, though they may also relate to psychological or emotional support (Van der Poel 1993).

One of the surveys cited most frequently was proposed by Fischer (1982). He was interested in social relationships with regard to their territorial dimension. Public health agencies funded this survey on issues also raised on the assumption that urban life may be a major source of psychological problems. The aim of Fischer's research was to analyze the potential of urban networks to provide support for their members. A important finding of this study on exchange networks, which was conducted among 1050 persons in Northern California, was that the networks were dispersed throughout the city, and that compared to networks in rural environments, they were less focused on the family. The ten name generators utilized apply to very different situations: discussions of personal problems, requests for advice, watering of plants, borrowing money, dinner receptions, etc. In 2001, Grossetti reproduced this survey in Toulouse, though with several variants (2002 and 2007).

This type of approach involves determining beforehand a set of situations – either experienced ("To whom did you make such and such a request?") or by way of an imaginary scenario ("If the need arises, to whom can you make such and such a request?"). The first situation is generally retrospective. Indeed, it is generally accepted that, as one goes back in time, data become increasingly unreliable. In the second situation, the questions take the form of a forecast, which may give rise to highly dubious results regarding the support actually received at the time the event occurs; rather, it ultimately serves as an indirect measurement of the *feeling* of isolation or, as Barrera pointed out, of the "subjective sense of belonging" (1980, p.12).

The limits of this approach

This approach may be accused of being unrealistic; the availability of these resources is in fact closely linked to the circumstances. In some cases, respondents may not be in the habit of asking for money, services or other types of support. Each time a need is expressed,

[4] For exemple of surveys with names generator: *Wisconsin Longitudinal Study* and the *German Socio-Economic Panel.*

various factors should be taken into account: the nature of the need itself, the implied requirements of the help, and the availability of this kind of help from the *alter*. The problem stems from the fact that a very context-based list of names is being requested out of any context.

More generally, this approach often results in confusing the social network with the support network (Barrera 1980). The presence of a social network can never guarantee that an individual will have access to the resources of its members. Their availability needs an individual forming a network *beforehand*, and continuing to maintain it. There are rules that control the process of resource mobilization itself and, amongst other things, bring into play the concepts of creating a common history, of trust, emotional commitment, reciprocity… Furthermore, few surveys compare the imaginary scenario on supposed help with the narrative concerning the help actually received (Charbonneau 2003, Bidart 2008).

Certain surveys refer to position generators, which ask individuals how they might make contact with others (Milgram 1967) or if they know someone in a particular kind of profession (Lin et al. 2001) or with a particular given name (McCarty et al. 1997). Resource generators (Van der Gaag and Snijders 2005) ask individuals if they know people likely to help them gain potential access to particular types of resources. While these approaches are common in studies on social capital, they do not generate names or networks. They are more experimental than sociological surveys, and thus won't retain our attention here.

As might be suspected, generating a name is only the first step. The next steps consist in collecting information on the persons named (the *alter*) and on the relationships that link them to *ego*. The degree of precision of the data collected on the *ego* and *alter* is also determined by the question and research frameworks. To describe the relationship, surveys generally use a number of indicators: the type of link in terms of role (family, colleague, neighbour, etc.), the length of the relationship, the frequency of their meetings, their shared activities, the multiplexity (or plurality of contexts and activities) and so on. Sometimes, research also gives consideration to the density of the network, that is, the extent of the inter-relationships among the *alter*. This gives an idea of the network's cohesion. In qualitative surveys, additional data can shed light on the development, history and nature of the links and of the logics underlying the evolution of networks.

This quick overview linking approaches and theoretical issues has allowed us to identify several crucial choices, namely:

- to give networks marginal or central status in the survey;
- to create a single name generator or combine several of them;
- to think up different ways of prodding an individual's memory;
- to collect and measure factual data or consider more subjective conceptions, allowing respondents to evaluate and interpret them;
- to describe relationships or to simply identify the existence of a link;
- to view the list of names as a population or to also take into account the dimension of the network and its structure;
- to process the data as a whole or truncate either the number of names generated or the reference period.

Keeping these issues in mind, let us now consider an original approach for creating personal networks.

A two-step method: the context-focused generator

The issues and the tool

This study is born from the sociological hypothesis that there exists a strong link between forms of sociability (practices associated with making contact with others, types of networks, logics of relationships, etc.) and forms of socialization. We are therefore seeking to clarify the links between, on the one hand, the biographical path and, on the other hand, changes in relationships and in the network as a whole. The dynamics play a central role in this approach, which has resulted in the development of a longitudinal panel survey.

The survey was set up in 1995 by Claire Bidart, Alain Degenne, Lise Mounier, Daniel Lavenu and Anne Pellissier[5]. It is a qualitative survey of a panel of young people living in the city of Caen (France) on the first wave of the survey. They were contacted in their last year of high school (1/3 of them), of vocational high school (1/3) or in social integration training programs (1/3), with a roughly equal number of male and female students in each group. At that time, they were between 17 and 23 years old. In the first survey wave, in 1995, we interviewed 87 students; we again interviewed 74 of these young people in 1998, 66 in 2001 and 60 in 2004. The interviews took place in their homes, with the interviewers sometimes travelling quite far, even abroad, to interview those who had moved.

The personal networks created by the respondents played a central role in this survey, along with life narratives. Consequently, the interviews lasted between 4 and 10 hours[6] (including the name-generator tool and the qualitative part), and were usually divided into several interviews, each separated by an interval of several days. Furthermore, these intervals allowed the interviewers to compare the networks just created with those from previous waves, so that they could ask the respondents to explain any changes that had occurred during the interval. The qualitative dimension facilitated an understanding of the relational and biographical dynamics at work, and of the links between them. The tool was then taken up and adapted to the context of three other surveys conducted in Québec by Charbonneau and Bourdon[7].

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[5] It was funded by the DRASS and the DRTEFP of Basse-Normandie, the DDASS of Calvados, the City of Caen, the MRSH of Caen, the *Délégation Interministérielle à l'Insertion des Jeunes,* the *Ministère de la Jeunesse et des Sports*, the *Fonds d'Action Sociale*, the *Plan Urbain*, France-Télécom R&D, the CNAF and the *Conseil Régional de Basse-Normandie*. For more information about this survey, see: http://halshs.archives-ouvertes.fr/halshs-00164797

[6] The experiment conducted by Bernard and al. (1987) required also 8 hours, but their sample was much smaller (6 informants).

[7] The first deals with the influence of networks on educational paths; it was funded by the *Fonds québécois de la recherche sur la société et la culture* (Bourdon et al. 2007). The second deals with youth in foster care, and was funded by the *Association des centres jeunesse du Québec* (Poirier et al. 2006). The third analyzes the sociability of individuals who live alone, and was funded by the *Social Sciences and Humanities Research Council of Canada* (Charbonneau et al. 2009).

From the standpoint of socialization processes, it is very important to create the broadest network possible, since this provides the most complete description of the range of contacts and resources in the social circle. Consequently, it is necessary to develop tools that to the greatest extent possible aid the memory of the individual, as with the notebook technique, but, also, to envisage a wide array of relationship contexts covering all encounter possibilities while remaining close to the social reality actually experienced. Thus, the team decided to create its own name generator. The sociological point of view led to concentrate on the social contexts rather than on individual cognitive processes, on experienced realities rather than on fictive scenarii, on daily life sociability rather than on ressource functions of the relationships. These priorities distinguish this survey from some reviewed above. It requires to build first a general network as an image of the social surrounding of the person, that avoids to elicit names from relationships predefined with a certain characteristic, as supportive ones, and then, only at this second step, to distinguish the diverse specific ressources available.

Thus the distinctive characteristics of this generator were to use a systematic review of possible life contexts and differentiate two complementary stages in order to distinguish the global contexts-based network from specific ressources-based networks. This tool may then remain flexible and adapted to different topics.

The first stage: creating a personal network based on contexts

The personal networks were based on a series of questions on life's different contexts. The tool had to cover as broadly as possible the contexts young people possibly dwell in : school, university, work, recreational activities, various organizations (associations, political movements, religious organizations…), informal groups of friends, people encountered in different locations (bars, discotheques…), the neighbourhood, people met through a spouse, through internet... They include past as well as present circles -- ones in which the interviewees no longer move, but in which they knew people with whom they are still in contact: former school friends, colleagues from previous jobs, old "buddies", former neighbours, childhood friends, army friends, people met through former love relationships, etc. On the other hand, deceased persons and animals were not listed.

In all, about 50 contexts in which individuals can potentially move (or have moved) were systematically cited in this way. Marin (2004) demonstrated that individuals use to bring up names right from the start by association -- by naming persons who belong to the same group or perform the same activity. Thus, generating names according to the context with which they are associated is a "natural" memory aid. It is a systematic tool and proceeds in a consistent way, staying within the logic of the context and avoiding "holes". Indeed, every effort should be made to ensure that a social network's boundaries do not derive from the tool itself, even when creating a particular type of network.

Following one or two quick questions to determine if the *ego* moves in or belongs to a particular type of context (for example, not everyone belongs to an association), the following question is asked: "In (a given type of context -- work, for example), who are the individuals you know a little better, with whom you talk a little more? " The wording of this question is based on the idea that during the first stage of a relationship certain persons set off from the undifferentiated group of other persons present. Thus, the question seeks an additional degree of specificity as a first step in the relationship from the context. We are aware that according

to contexts, to the diverse “foci” as Feld (1981) said, the thresholds between the “crowd” and personal relationships won’t be the same; for example it is two different things to “talk a little more” in the neighborhood than in a passionate recreational activity. But a large series of additional questions about the relationships will help to clarify those differences and allow us to requalify the ties if necessary; and the global social image of this “rooted” network we first need won’t suffer from this inequality.

Two screening questions per context were added; they allowed the interviewer to differentiate "strong links" from ordinary contacts: 1) Do you see any of them outside of (the context – e.g. work)? 2) Are any of them important to you, whether you see them elsewhere or not? If the interviewee replies "yes" to one of these questions, then the relationship is considered to be a "strong tie".

The network is constructed in this way -- patiently, context-by-context – and the list of given names grows longer. According to the sociological objectives of this recollection, it is clearly out of the question to limit the number of *alters* considered like in other surveys. If a person appears in several contexts, then her name is noted several times. Doing this, it is possible to determine the contexts which produce the greatest numbers of persons. In order to shorten the interviews, the Québec team noted only the first occurrence of names, and after the first wave did not repeat the whole procedure to generate the network but only pointed with the interviewee the differences (new *alter* met and *alter* no more frequented). As in Québec the interval between two waves was shorter than in France (6 months vs. 3 years), this economy was less risky for the memory. They also suppressed some long parts of the qualitative interviews. The advantage in terms of duration of the interviews is valuable (2 hours maximum vs. 10 hours). Lastly, in the french survey, to measure the density of the network all the given names with "strong ties" were placed around a circle, and the interviewee was invited to trace the links between the *alters* who use to see each other. With the collaboration of the interviewee, a drawing of the network was then traced, comprising all of the links and social circles[8], in both surveys.

<u>The second stage: from this network, identifying significant others, social supports and types of interaction</u>

It was important to preserve the possibility of comparing this survey with other surveys and to enlighten some topics by reintroducing more classic name generators in the interviews.

Significant persons

This involved, first, distinguishing the persons most important to the individual; this was especially relevant for moving closer to surveys that focused on the nucleus of the network. Thus, the very first question asked in the interview gave rise to an initial "sponteneous" names list for this nucleus. The interview started with the following question: "Who is currently important to you, who matters to you?"[9] Thus, it was possible not only to

[8] This is an additional aspect analyzed by the survey; the present paper will not focus on this point.

[9] In the Québec surveys, this initial name generator combines the Wellman and Burt questions instead: "Who are the persons with whom you feel the closest these days, or with whom you discuss important matters?"

distinguish this sub-population of "important" persons, and to draw comparisons between the young people or the survey waves, but also to compare its scope with that of other surveys emphasizing networks of significant persons. The names could then be repeated as different contexts were mentionned. Once the overall network had been developed (based upon the contexts covered), additional questions were asked.

Questions involving social support

With their list of network members right in front of them, survey participants answered questions that could resemble name generators based on exchange or support. Examples might include scenario and retrospective type questions as: "With whom of these persons could you set up a small business or share an apartment?"; "Who helped you find your job?"; "From whom among them would you seek advice on personal matters?"

What is different from other tools is that these lists of names are not generated in the absolute but, rather, refers to a pre-existing list coming from the first step of the "contextual" network. Individuals browse through it to aid their memory; but if a new name appears, it can then be added to the initial list. Thus, the name-generating function is constantly being activated. Consequently, this approach for generating names will be more systematic and more likely to assist the memory, as it reaches a comparatively broader array of fields and time spans than if this kind of specific name generator is applied *ad hoc*.

Questions about interactions

This part of the survey (absent in the Québec survey) also uses name generators based on interaction, for example: "Of these persons, whom do you telephone or e-mail the most?"; "Who was present at your last birthday?"… By using the general network as a basis, it is possible to trace networks particularly relevant for specific types of interaction, mediated communications or significant events. By comparison, a name generator dealing directly with these practices restricts the network to this response, which from the standpoint of the research may be sufficient in certain cases, but cannot evaluate the place of this network in social life.

Our approach actually occurs in two stages: 1) with a view to considering the socialization process as a whole, creating the broadest possible network from life contexts; 2) within this "basic" general network, choosing *alters* and constructing sub-networks likely to match a particular characteristic or answer a particular sociological question.

The first stage deals with the underlying hypothesis on the strong link between sociability and socialization and provides an overall picture of the surround; the context-generating approach "casts the net wide", helping memory to go beyond spatial and temporal proximities, to reach a great range of milieux and events. Moreover, it does so consistently and contiguously, without leaving holes among heterogeneous entities tapped. It highlights a network rooted in the real life and in the social contexts. The second stage allows to add generators a *posteriori* and to deal with "secondary" themes according to research priorities and comparisons with other studies.

The division into two stages renders the tool very flexible since it allows for the possibility of adding new questions, depending on various considerations: those linked to the survey life cycle (there are more questions on advice on child-rearing in wave four than in

wave one), those linked to research funding (for example, in waves three and four a set of questions about telephone use was added to the French survey with an eye to the funding by France Télécom), those referred to specific contexts one wishes to accentuate (such as the social workers in the Québec survey on young people in foster care). Then the second step of this tool may be adapted to different research questions, hypotheses and so on.

The "name interpreters", the variables brought to light and the explanations drawn from the qualitative data are too varied and rich in potential to be taken up here. The characteristics of the *alters* are more or less similar to those used in other surveys, though the characteristics of the relationships include more original questions, such as the one on the "driving force" or the "motivation" of the link: "Finally, what is it that brings you close to each other?" (Bidart 2009). To reduce the length of the interview, certain data were collected for only part of the network, like some qualitative characteristics of the links that were limited to strong ties, or not questionned in the Québec survey.

In the light of the generators discussed above, we will terminate by briefly reviewing the comparative results of the context-based name generator:

[Insert Table 1]

Since there is no restriction on the number of "significant" persons, generating names according to context allows us to create broader networks. The French longitudinal survey demonstrates that the nucleus increases over time, with sociability becoming more intensive with age (Bidart 1997, 1999, 2005).

By incorporating life contexts, this name generator keeps the networks within their social dimension. It does not reduce them to a nucleus of close relations or helpers as other techniques tend to do so, and creates the link with society as a whole with its divisions, structures and… contexts. In this regard, it constitutes a relevant tool for the sociological perspective. Nonetheless, it too has a limitation: it is time-consuming and therefore should be reserved for surveys that place major emphasis on network analysis. However, there is a possibility to use a shorter version, as was done in Québec. That said, the comparatively low number of withdrawals from the panel shows that young people sometimes like to take part in long interviews. The longitudinal aspect fosters trust and an acceptance of the regular meetings, every three years, with an interviewer whose questions "reveal" a network not usually considered.

Table 1: Average number of *alters* generated, by type of name generator, according to different surveys on personal networks

Survey	Overall network collected	Significant persons (important close relations, advisors)
Survey -- contacts in France	17/week	
Wellman	11.7 (2nd survey)	4,7
Fischer	18.5	4
Grossetti	27.4	4
Caen panel		
Wave 1	40	7.4
Wave 2	35	9.5
Wave 3	37	12.8
Wave 4	39	12.8
Surveys Québec		
Persons who live alone	32	7
Persons who live alone (youths, 20-35 years of age)	41	8
Young undergraduates	30.4	5.9
Youth in foster care	16.5	3.9

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