

## ABSTRACT

### NEIGHBOURHOOD CONTEXT AND CIVIC DEVELOPMENT:

#### **The role of neighbourhood social and structural features in promoting adolescent civic engagement**

There is increasing evidence that neighborhood characteristics play a role in young people's physical and psychosocial well-being (Almedon, 2005; Leventhal & Brooks-Gunn, 2000; Youngblade & Curry, 2006), and may be a critical determinant particularly for economically disadvantaged youth (Chung & Steinberg, 2006; Kohen, Leventhal, Dahinten, & McIntosh, 2008). Neighborhoods characterized by disadvantaged economic conditions, high ethnic diversity, and residential instability have a negative effect on a wide range of outcomes, such as school achievement, and emotional and behavioral problems (Leventhal & Brooks-Gunn, 2000; Leventhal, Dupere, & Brooks-Gunn, 2009). More recent studies underline the importance of social processes occurring within the neighbourhood, showing how different levels of social connectedness and institutional resources can affect adolescents' physical and mental health (Vieno, Nation, Perkins, Pastore, & Santinello, 2010). Neighbourhood social resources can protect against the negative consequences associated with structural disadvantage and decreasing the likelihood of experiencing academic, emotional and behavioural problems. A recent theoretical shift in neighbourhood studies led scholars to conceptualize neighbourhood resources not only in terms of factors that might offer protection from negative developmental trajectories, but also as *wellness promotive* factors that can foster a positive development during adolescence. Although studies based on this assumption are still limited, the existing evidence suggests that cohesive relationships among residents can nurture positive feelings about the self and promote the development of social competencies, such as civic engagement. Indeed, by developing social ties with people in the neighbourhood and getting involved in local organizations, adolescents can be socialized to civic attitudes and behaviours (Da Silva, Sanson, Smart, & Toumbourou, 2004; Flanagan, Cumsille, Gill, & Gallay, 2007).

The present work, fitting in with this more recent line of research, aims to expand the existing evidence by examining the role of neighbourhood social and structural features in promoting or hindering adolescent civic development.

The first study (study 1) was a qualitative study which arose from the complexity of defining and measuring the construct "neighbourhood", involving a sample of 11-, 13- and 15-year olds. The main aims of this study were identifying an administratively defined geographical unit which is

adequate for the investigation of neighbourhood effects in the Italian context, and detecting the neighbourhood features most relevant for adolescents' well-being. The results of this study have been used to develop a quantitative study (study 2 and 3). The purpose of study 2 was to evaluate a theoretical model linking neighbourhood social connectedness and adolescents' civic engagement (local and global civic responsibility, civic competencies, civic behaviours), in a sample of 11-, 13- and 15-year olds living in a mid-sized Italian city (Padova). In particular, in the proposed theoretical model, the association between neighbourhood social connectedness and adolescents' civic engagement has been examined, taking into account the mediating effects of non-parental adults' and peers' networks and adolescents' attachment to the neighbourhood. Study 3 aims to evaluate which neighbourhood structural and institutional features (perceived wealth, ethnic composition, population density, physical and social disorder, perceived opportunities for activities and meeting places) impact the levels of social connectedness within the local community.

Our findings suggest that adolescents, when asked to identify their neighbourhood of residence, refer to the districts of the city, which in Padova are called "urban units". Moreover, participants evaluated their neighbourhoods by referring both to social and structural features: the presence of friends in their local communities, having an extended social network with neighbours, the presence of relationships among residents characterized by trust and reciprocity, neighbourhood opportunities for activities, and meeting places. The findings from study 2 show a positive association between the levels of social cohesion in the neighbourhood (intergenerational closure, trust and reciprocity) and adolescent personal connectedness in the local community (neighbourhood-based friends, personal relationships with neighbours), on one hand, and their levels of civic engagement, on the other hand; this association was mediated by the degree to which adolescents perceive their networks of friends (peers and non-parental adults) to be civically engaged and by adolescents' attachment to their neighbourhood. Finally, results of the third study showed that high ethnic diversity, population density, and physical and social disorder (measured at the neighbourhood level) were associated with lower levels of social connectedness among residents. On the contrary, the availability of meeting places and opportunities for activities in the neighbourhood was a positive predictor of social connectedness within the local community.

In conclusion, understanding contextual correlates of adolescent civic engagement is critical because the levels of civic engagement during adolescence can predict civic participation in adulthood (Youniss, McLellan, & Yates, 1997; Zaff, Malanchuk, & Eccles, 2008). Moreover, civic engagement is associated with better psychosocial adjustment (Schmidt, Shumow & Kackar, 2007), and it can also provide services to the local community, thus promoting the effective functioning of society (Flanagan & Sherrod, 1998). Understanding contextual correlates of civic engagement is

critical in order to develop community interventions able to promote its development. Our results suggest that, in order to promote civic engagement, programs need to focus on the main social settings of adolescents' lives. Similarly to what was postulated by Zaff et al., (2008), our results indicate that a broad "civic context" should be in place throughout adolescence in order to maximize the development of civic engagement. Thus, civic engagement initiatives should take a broader approach than only implementing civic activities for young people, for example by promoting cohesive ties within the neighbourhood. A promising approach consists in fostering the opportunities for activities and meeting places for residents in a community; improving neighbourhood opportunities would not only nurture social cohesion within the neighbourhood, but also create a setting for young people's positive development.

### **ABSTRACT** *(Italian)*

Molte evidenze empiriche mostrano l'influenza che le caratteristiche del quartiere di residenza possono avere sullo sviluppo in età adolescenziale (Almedon, 2005; Leventhal & Brooks-Gunn, 2000; Youngblade & Curry, 2006), soprattutto per ragazzi e ragazze che provengono da famiglie svantaggiate da un punto di vista socio-economico (Chung & Steinberg, 2006; Kohen, Leventhal, Dahinten, & McIntosh, 2008). I quartieri caratterizzati da un basso status socio-economico, un'elevata diversità etnica ed una forte instabilità residenziale hanno un effetto negativo su una grande varietà di indicatori di benessere, come il rendimento scolastico o lo sviluppo di problemi emotivi e comportamentali (Leventhal & Brooks-Gunn, 2000; Leventhal, Dupere, & Brooks-Gunn, 2009). Studi recenti sottolineano l'importanza dei processi sociali che avvengono all'interno del quartiere, mostrando come diversi livelli di coesione sociale e la disponibilità di risorse istituzionali possano influenzare il benessere fisico e mentale in adolescenza (Vieno, Nation, Perkins, Pastore, & Santinello, 2010). Le risorse sociali della comunità locale possono proteggere dalle conseguenze negative dello svantaggio socio-economico del quartiere diminuendo la probabilità di andare incontro a problemi scolastici, emotivi e comportamentali. Recentemente, alcuni autori hanno concettualizzato le risorse del quartiere non solo come fattori protettivi, ma come fattori in grado di promuovere uno sviluppo positivo durante l'adolescenza. Anche se gli studi che partono da questo assunto non sono ancora molto diffusi, sono presenti evidenze empiriche che mostrano come relazioni coese all'interno del quartiere possano promuovere il benessere psicologico e l'acquisizione di competenze sociali, come il coinvolgimento civico. Instaurando forti legami sociali all'interno del quartiere, infatti, e partecipando alle organizzazioni del territorio, gli

adolescenti possono sviluppare valori, competenze e comportamenti orientati al bene comune (Da Silva, Sanson, Smart, & Toumbourou, 2004; Flanagan, Cumsille, Gill, & Gallay, 2007).

Il presente lavoro, che si inserisce in questa recente area di ricerca, ha l'obiettivo di ampliare le attuali conoscenze riguardo al ruolo che le caratteristiche sociali e strutturali del quartiere di residenza hanno nello sviluppo civico in adolescenza.

Lo studio 1, condotto con una metodologia qualitativa, nasce dalle complessità legate alla definizione e misura del quartiere, ed ha coinvolto un campione di adolescenti dell'età di 11, 13 e 15 anni. Lo studio ha avuto come obiettivi principali la definizione di un'unità geografica appropriata allo studio del quartiere nel contesto italiano e l'individuazione delle caratteristiche del quartiere più salienti per il benessere in età adolescenziale. I risultati di questo studio sono stati utilizzati per progettare una ricerca quantitativa, sulla quale si basano il secondo ed il terzo studio. L'obiettivo principale dello studio 2 è stato valutare un modello teorico sull'associazione tra la coesione sociale all'interno del quartiere ed il coinvolgimento civico in adolescenza (responsabilità civica locale e globale, competenze civiche, comportamenti civici), in un campione di ragazzi e ragazze di 11, 13 e 15 anni provenienti da Padova. Nel modello teorico proposto è stata valutata l'associazione tra diversi aspetti della coesione sociale nel quartiere ed il coinvolgimento civico degli adolescenti, ipotizzando come fattori di mediazione il livello di coinvolgimento civico percepito all'interno della propria rete sociale (di pari ed adulti) a l'attaccamento al quartiere. Lo studio 3 mirava a valutare quali caratteristiche strutturali ed istituzionali (ricchezza percepita, composizione etnica, densità di popolazione, disordine fisico e sociale, disponibilità di attività e luoghi d'incontro) del quartiere avessero un impatto sul livello di coesione sociale della comunità locale.

I risultati mostrano che i partecipanti, di fronte alla richiesta di identificare il proprio quartiere, fanno riferimento alle "unità urbane di Padova". Inoltre, la valutazione del quartiere viene fornita riferendosi ad aspetti sociali, istituzionali e strutturali della comunità: la presenza di amici nel quartiere, la presenza di estese reti sociali con i vicini, relazioni coese tra i residenti e la disponibilità di attività e spazi d'incontro. I risultati del secondo studio evidenziano un'associazione positiva tra il livello di coesione sociale all'interno del quartiere (coesione intergenerazionale, fiducia e reciprocità) e l'integrazione personale dell'adolescente nella comunità (amici nel quartiere, relazioni sociali con i vicini), da una parte, ed i livelli di coinvolgimento civico, dall'altra; questa associazione è risultata mediata dal grado in cui gli adolescenti percepivano elevati livelli di responsabilità e partecipazione civica tra adulti e pari facenti parte della loro rete sociale, e dal livello di attaccamento alla comunità locale. Infine, i risultato del terzo studio mostrano che

un'elevata diversità etnica, elevati livelli di instabilità residenziale e disordine fisico e sociale si associano a minori livelli di coesione all'interno del quartiere.

In conclusione, comprendere i correlati contestuali dello sviluppo civico in adolescenza risulta fondamentale, in quanto i livelli di coinvolgimento civico in adolescenza costituiscono il miglior predittore della partecipazione civica in età adulta (Youniss, McLellan, & Yates, 1997; Zaff, Malanchuk, & Eccles, 2008). Inoltre, il coinvolgimento civico è risultato associato ad un maggior benessere psicologico (Schmidt, Shumow & Kackar, 2007), ed allo stesso tempo può fornire servizi alla comunità, contribuendo dunque ad un miglior funzionamento della società (Schmidt, Shumow & Kackar, 2007). Comprendere i correlati contestuali del coinvolgimento civico è fondamentale per progettare interventi efficaci in grado di promuoverne lo sviluppo. I nostri risultati suggeriscono che, per promuovere il coinvolgimento civico in adolescenza, è necessario focalizzarsi sui principali contesti di vita in cui ragazzi e ragazze sono inseriti. Analogamente a quanto sostenuto da Zaff e collaboratori (2008), i nostri risultati suggeriscono che per favorire lo sviluppo civico gli adolescenti abbiano bisogno di un "contesto civico", composto da diversi setting sociali in cui vengono trasmessi obiettivi tra loro coerenti. I programmi mirati a promuovere valori, competenze e comportamenti di natura civica, dunque, dovrebbero avere un approccio che va al di là della semplice educazione civica, o del coinvolgimento degli adolescenti in organizzazioni della comunità. Un approccio che, coerentemente con i nostri dati, risulta promettente, consiste nella promozione di attività e luoghi d'incontro all'interno dei diversi quartieri; alimentare le opportunità d'incontro potrebbe non solo favorire la creazione di legami coesi tra i residenti della comunità locale, ma concorrerebbe anche a creare un contesto adeguato per uno sviluppo positivo in adolescenza.

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## INTRODUCTION

There is increasing evidence that neighbourhood characteristics play a role in young people's physical and psychosocial well-being, by influencing a wide range of outcomes, such as school achievement and emotional and behavioural problems (Leventhal & Brooks-Gunn, 2000; Leventhal, Dupere, & Brooks-Gunn, 2009).

Early studies on neighbourhood effects were spurred by the need to understand the detrimental effects of growing up in disadvantaged areas (Park, 1916; Shaw and McKay, 1942), while during the last decade of the past century there was a proliferation of studies investigating the association between neighbourhood characteristics and adolescent development. Contemporary studies are strongly related to the historical origins of the field, with an important focus on risky behaviours; however, they have expanded their approach in terms of outcomes of well-being and kinds of neighbourhoods analyzed (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009).

Why is there a growing interest in the role of the neighbourhood context in influencing adolescents' well-being?

Early adolescents are in a developmental stage characterized by increasing autonomy from parents, which allows them to explore different settings; their range of actions, however, is still limited, thus making the neighbourhood a critical context in adolescent lives, including at the same time sources of risks (Allison et al., 1999) and resources for positive development (Leffert et al., 1998). Indeed, many of the people that adolescents come into contact with and the activities in which they participate in are often located in their immediate neighbourhood of residence.

According to several studies, neighbourhoods characterized by disadvantaged economic conditions, high ethnic diversity, and residential instability have a negative effect on a wide range of outcomes, such as school achievement and emotional and behavioural problems. More recent studies underline the importance of social processes occurring within the neighbourhood, showing how different levels of social connectedness and institutional resources can affect adolescents' physical and mental health (Vieno, Nation, Perkins, Pastore, & Santinello, 2010). Neighbourhood social resources can protect against the negative consequences associated with structural disadvantage and can decrease the likelihood of experiencing academic, emotional and behavioural problems.

A recent theoretical shift in neighbourhood studies led scholars to conceptualize neighbourhood resources not only in terms of factors that can offer protection from negative developmental trajectories, but also as *wellness promotive* factors that can foster positive development during adolescence (both in terms of subjective well-being and acquisition of

competencies). Although studies based on this assumption are still limited, the existing evidence suggests that cohesive relationships among residents can nurture positive feelings about the self and promote the development of social competencies, such as civic engagement. By developing social ties with people in the neighbourhood, for instance, and by getting involved in local organizations, adolescents can be socialized to civic values, and learn how to contribute to the common good (Da Silva, Sanson, Smart, & Toumbourou, 2004; Flanagan, Cumsille, Gill, & Gallay, 2007).

In general, there is strong empirical evidence supporting the association between neighbourhood disadvantage and adolescent emotional and behavioural problems; taking this evidence as a starting point, more recent studies have aimed to understand in greater depth the mechanisms responsible for this association. A shared theoretical model guiding neighbourhood research, representing the “gold standard”, is not available in the literature, and scholars are still advocating the need for theoretical work in the field. However, great theoretical advances have occurred in neighbourhood research in the last two decades, in particular with the work of Jencks and Mayer (1990) and Leventhal and colleagues (2000, 2009).

The principal aim of the current work is to build on the existing empirical and theoretical evidence in order to reach a better understanding of the association between neighbourhood context and adolescent development. In particular, fitting in with the more recent line of research, which conceptualizes the neighbourhood resources as wellness-promotive factors, the present work aims to investigate the role of neighbourhood characteristics in influencing adolescent civic development. By applying some of the mechanisms that have been proposed to explain the detrimental effects of neighbourhood disadvantage on adolescent development (Jencks & Mayer, 1990; Leventhal & Brooks-Gunn, 2000), the current studies aim to reach a better understanding of the mechanisms through which neighbourhood features can impact adolescent civic development.

The importance of understanding how to promote civic engagement in adolescence lies in its importance for the process of identity formation (Erikson, 1985), when youths are developing their identity and start to question how they fit into the society that goes beyond their family and friends. Civic engagement is also associated to better psychosocial adjustment (Schmidt, Shumow & Kackar, 2007), by promoting psychological, social and intellectual growth for young citizens (Fredricks & Eccles, 2006). At the same time, adolescent civic engagement can provide services to the local community, thus promoting the effective functioning of society (Flanagan & Sherrod, 1998). Since studies have shown that levels of civic responsibility during adolescence can predict civic responsibility in adulthood (Youniss, McLellan, & Yates, 1997; Zaff, Malanchuk, & Eccles, 2008), it is critical to understand which factors are associated with the development of civic engagement at this developmental stage.

The theoretical section of the current work begins with a presentation of the main conceptualizations of neighbourhood, along with a complete description of the principal structural and social dimensions examined in neighbourhood research (chapter 1). Indeed, neighbourhood is a multidimensional construct including a geographical unit and a subjective experience of the environment within this unit, meaning that its operationalization for research and intervention purposes is particularly complex. Methodological issues related to neighbourhood studies are also presented, describing the sources of data most frequently used to measure the neighbourhood and the typical research designs employed in this field of research.

In the second chapter, the main research findings in the study of neighbourhood influence on adolescents' development are illustrated. The first sections synthesize the results of earlier studies examining the influence of neighbourhood structural disadvantage on adolescents' academic achievement, and emotional and behavioural problems. The second part of the chapter focuses on studies conceptualizing neighbourhood as a resource for positive development; in particular, the main findings concerning the association between neighbourhood features and positive psychological outcomes (positive self-concept and life satisfaction) are illustrated. Finally, a review of the research focusing on the relationship between neighbourhood characteristics and adolescents' civic engagement is presented.

The third chapter, highlighting the need to understand the mechanisms through which neighbourhood impact adolescents' development, reviews the principal theoretical frameworks that have been adopted in neighbourhood studies. Starting from the ecological system theory (Bronfenbrenner, 1979), theoretical models guiding the earlier studies on neighbourhood effects are illustrated, describing the social disorganization theory (Sampson & Groves, 1989) and the five theoretical models identified by Jencks and Mayer (1990). Subsequently, the most used theoretical models in current neighbourhood research are described: the *institutional resources* model, the *norms and collective efficacy* model, and the *relationships and ties* model, which represent an integration and development of past theories (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009). Examples of studies that developed and evaluated theoretical models based on these frameworks conclude the chapter.

The fourth chapter focuses on adolescents' civic engagement, illustrating developmental theories relevant to the study of adolescents' civic engagement: social cognitive learning theory (Bandura, 1986), the theory of role taking (Selman, 1976), psychosocial theory (Erikson, 1968) and the theory of socio-political development (Watts et al., 1999). Connections between theories developed in neighbourhood research and general developmental theories are underlined; based on

the integration of these theoretical frameworks, a model explaining the possible mechanisms through which neighbourhood features can promote civic development is presented.

Based on this theoretical and empirical evidence, three studies were conducted in order to expand existing evidence on the association between neighbourhood characteristics and adolescent civic engagement.

Study 1, conducted with a qualitative methodology, arises from the complexity of defining and measuring the construct “neighbourhood”, and has the following specific aims: 1) Investigating whether there is an administratively defined geographical unit which is adequate for the investigation of neighbourhood effects in the Italian context (more specifically, in the city of Padova); 2) Detecting the neighbourhood structural and social features most relevant for adolescents’ well-being.

The results of this qualitative study have been used to develop a quantitative study examining the association between neighbourhood characteristics and adolescent civic engagement. In particular, in study 2 data collected from this study were employed to evaluate two theoretical models linking neighbourhood social connectedness and adolescents’ civic engagement (local and global civic responsibility, civic competencies, civic behaviours), which were developed based on the literature on neighbourhood effects and civic development. In particular, in the proposed theoretical model, the association between neighbourhood social connectedness and adolescents’ civic engagement has been examined, taking into account the mediating effects of non-parental adults’ and peers’ networks, and adolescents’ attachment to the neighbourhood.

Once the importance of neighbourhood social connectedness for adolescent civic development was evaluated, our subsequent aim was to identify neighbourhood features impacting social relationships in the local community. Study 3 aims to investigate the role of neighbourhood structural and institutional features, by examining their association to neighbourhood social connectedness. This study, based on the theoretical assumptions of the institutional resources model (Leventhal & Brooks-Gunn, 2000), aims to evaluate which neighbourhood structural and institutional features impact different levels of social connectedness within the local community.

More in general, the current work fits in with the recent interest in studying neighbourhood as a microcosm of public life, where adolescents can find resources for their positive development and with the increasing attention on the contextual correlates of youth civic engagement.

## CHAPTER 1

### NEIGHBORHOOD CONTEXT AND DEVELOPMENT IN ADOLESCENCE: ORIGINS OF THE FIELD AND METHODOLOGICAL ISSUES

*“In the course of time every section and quarter of the city  
takes on something of the character and qualities of its inhabitants.  
Each separate part of the city is inevitably stained  
with the peculiar sentiments of its population.  
The effect of this is to convert what was at first a  
mere geographical expression into a neighbourhood...”*

*-Park, 1915-*

#### **1.1. Neighbourhood effects on children and adolescent development: history of the field**

The last decade of the 20th century was characterized by a shift in adolescent research, with increased attention on studying adolescent development in social contexts. In particular, scholars recognized that multiple contexts influence development during adolescence, underlining the role of neighbourhood as a context that provides opportunities for activities and social interactions (Leventhal & Brooks-Gunn, 2000, 2001). Adolescence is a developmental stage characterized by the increasing exploration of neighbourhood settings, and this exposure is often unsupervised (Allison et al., 1999); for this reason, adolescents can come into contact with different kind of risks, but at the same time they can find several opportunities for positive development, creating networks with people and getting involved in local organizations (Leffert et al., 1998; Pretty, 2002). Additionally, several studies have pointed out that neighbourhood characteristics can transmit their influences through more proximal contexts, like family and schools (Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999; Leventhal & Brooks-Gunn, 2003; Meyers & Miller, 2004; Quane & Rankin, 2006).

Besides the significance of neighbourhood context for development during adolescence, the increased interest in studying neighbourhood effects was encouraged by the convergence of historical and theoretical changes (Leventhal & Brooks-Gunn, 2004).

Historically, the interest in the neighbourhood as a social context relevant to adolescent development originated in the United States during the nineteenth century, when increasing industrialization, immigration and urbanization raised concerns about the consequences of growing up in disadvantaged areas (Leventhal, Dupere, & Brooks-Gunn, 2009). However, the first empirical evidence documenting the links between neighbourhood characteristics and adolescents'

development dates back to the following century, when the first studies showed the consequences that living in urban centres can have in terms of problem behaviours such as crime and delinquency (Park, 1916; Shaw and McKay, 1942).

Consistent with the early studies, more recent research on neighbourhood as a context that influences adolescent development was spurred by historical changes. Demographic changes in family composition and residential patterns, coupled with the decline of industrial jobs in favour of service jobs, led to a concentration of poverty and unemployment in urban centres, strengthening the need to understand how living in a disadvantaged community can affect the development in adolescence (Massey & Denton, 1993; Wilson, 1996). Contemporary studies are strongly related to the historical origins of the field, with an important focus on risky behaviours, but they have a broader approach in terms of outcomes of well-being and kinds of neighbourhoods analyzed (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009).

From a theoretical point of view, the acceptance of ecological models in developmental psychology (Bronfenbrenner, 1979), further fueled interest in studying neighbourhood effects on children and adolescents' well-being. These theoretical frameworks emphasize the influence of social contexts on human development and underline the need to examine multiple systems that affect children and adolescents, in order to understand how these contexts interact in facilitating (or hindering) developmental outcomes.

The social concerns about the consequences of growing up in a disadvantaged neighbourhood in adolescence, together with an increased attention for contextual frameworks in developmental psychology, fostered the interest in the mechanisms through which contextual influences operate. The principal aim of researchers in the field became to examine how risk and protective factors in the neighbourhood affect adolescents' development, taking into account the interactions among multiple contexts (family, peers, school, neighbourhood) (Graber, Brooks-Gunn, & Petersen, 1996).

In an attempt to understand the link between neighbourhood features and adolescents' development, sociologists and urban scholars revisited the social disorganization theory (Shaw and McKay, 1942) as an exploratory model for problem behaviours that characterize adolescents in urban areas (see Sampson & Morenoff, 1997, for a review). Subsequently, alternative theoretical models were developed, in order to explain both the negative and the positive influences of neighbourhood characteristics on adolescent well-being (Jencks & Mayer, 1990). Starting from the review of Jencks & Mayer (1990), in which five possible models linking neighbourhood characteristics and individual behaviour were identified, other scholars (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009) conceptualized three theoretical frameworks that explain the mechanisms through which neighbourhoods influence adolescent development. The *institutional*

*resources* model posits that neighbourhood influences are mediated by the quantity and the quality of resources in the community (such as schools, health and social services and recreational programs). According to the *norms and collective efficacy* model, neighbourhood effects are related to the capacity of formal and informal institutions in the community to monitor residents' behaviour (in particular youth groups) in line with shared social norms, thus contributing to maintaining the public order. The *relationship and ties* model speculates that parental characteristics, and their social networks, transmit neighbourhood effects by influencing adolescents' behaviour and well-being. These models, conceptualized as being complementary rather than conflicting, are currently the most used theoretical benchmarks in neighbourhood studies. Their usefulness may vary when studying different outcomes of well-being or developmental stages.

Although these frameworks are fundamental in guiding current studies on neighbourhood effects, they provide a general explanation of the relation between the neighbourhood characteristics and adolescent development. More theoretical work is needed to deepen our knowledge about which neighbourhood characteristics influence which aspects of adolescent development, and the mechanisms responsible for this association (Kohen, Leventhal, Dahinten, & McIntosh, 2008). Theory generation in this field is particularly complex because there are many methodological issues that have to be taken into account in studying neighbourhood effects, related to the definition of neighbourhood, the dimensions to be studied, the sources of measurement and the study designs. The variety of methods that scholars have adopted to date, that are reviewed in the following section, have made it difficult to gain a more precise understanding of the processes that link neighbourhood characteristics and adolescent development.

## **1.2. Defining neighbourhood: conceptualization and unit of analysis**

Defining neighbourhoods represents a challenge for social science researchers who intend to understand how the characteristics of the area of residence influence the emotional, cognitive and behavioural development in adolescence. Since the first studies, the construct *neighbourhood* has been defined and operationalized in a myriad of ways, identifying various structural and social characteristics. In a review of various conceptualizations of neighbourhood, Nicotera (2007) systematizes the distinction between objective and subjective features of the neighbourhood discussing the double meaning of neighbourhood as an “environment” and neighbourhood as a “place”.

Although the words *environment* and *place* are both used to define neighbourhood context, often interchangeably, different researchers and practitioners may attribute different meanings to them. According to Kemp's (2001) definition, if we conceptualize neighbourhood as an environment, we assume that it is a context that most people experience in a similar way. In



contrast, neighbourhood as a place is defined as resulting from an individual's or group's subjective experience of an environment over a period of time (Kemp, 2001). In line with this distinction, individuals' perception of a neighbourhood changes when they become "insiders" and through their lived experience turn an environment into a place.

This conceptualization has strong implications for social science researchers and practitioners: if we define and measure a neighbourhood exclusively as an environment, we leave out the subjective experience of the people who reside in the neighbourhood. At the same time, measures of the neighbourhood conceptualized as an environment are fundamental for studying the structural features that influence residents' daily lives.

The environment-place distinction is well depicted in Chaskin's (1995) definition of neighbourhood, which underlines that residents share both a geographically limited unit as well as a set of circumstances within this unit, including social relationships (relatives and friends), functional connections (e.g. services) and cultural roots, such as religion and traditions. These connections are critical in order to define neighbourhood as place, because the simple fact of living in a geographically bound area does not automatically imply that individuals will create a relationship with the neighbourhood, by transforming a set of objective characteristics (an environment) into a socially constructed, subjective experience of an environment (a place).

As Nicotera (2007) points out, the environment-place duality can be found in other conceptualizations of neighbourhood. For example, both Gephart (1997) and Wachs (1999) underline the multidimensionality of the construct, which encompasses objective and subjective components. The first author (Gephart, 1997) defines neighbourhoods and communities as social contexts where individuals come into contact with formal and informal institutions and have access to community opportunities and resources, emphasizing that they are at the same time geographical units, social networks and perceived environments. Wachs (1999) clarifies this objective-subjective dichotomy stating that, besides the objective environment, the residents living in a neighbourhood experience a parallel environment formed by their subjective perception of the objective features. These definitions are complemented and broadened by Meegan and Mitchell (2001), who underline the importance of the neighbourhood for residents' identities: in the authors' view, neighbourhood is a living space where people can get access to physical and social resources and which "symbolizes aspects of the identity of those living there, to themselves and to outsiders" (Meegan and Mitchell, 2001, p. 2172). The conceptualizations presented, despite being derived from scholars in several disciplines, all converge in defining the neighbourhood as a complex, multidimensional construct which comprises objective and subjective components.

Although several scholars agree with a definition of neighbourhood encompassing structural and social features, another issue to consider when studying neighbourhood context regards the geographical unit of analysis. In studies conducted in the United States, the most frequent approach is to utilize data collected by the U.S. Decennial Census, which are taken from the census forms that the population fills out every decade. Based on this data, a neighbourhood is typically defined as a census tract, a geographical unit including approximately 3,000-8,000 residents which are identified in collaboration with the local communities to reflect principal physical and social features such as major streets, railroads and ethnic divisions. In some studies, depending on research hypotheses, larger geographical units are employed, which include 20,000 to 300,000 individuals (e.g. the zip codes). In other cases researchers use census block or block groups, which contain 1,100 individuals per block, or combine some adjacent and homogenous tracts into neighbourhood clusters (e.g., Brody et al., 2001). The smallest geographical unit used for defining the neighbourhood is the street-block, which includes the two sides of the street where a person resides (e.g., Perkins, Larsen, & Brown, 2009). Census information is also used in studies conducted outside the U.S., although national censuses vary from country to country in terms of the type and level of data they contain, in geographical coverage and in the terminology and methodologies used; as a result, census data are sometimes difficult to compare across countries.

Along with census information, other bureaucratically defined units are available from administrative data sources, such as school districts, health districts and police districts, which usually overlap to some extent.

Finally, more ethnographic studies of neighbourhoods emphasize that individuals often perceive boundaries in a different way. For this reason, some researchers rely on participant reports, and neighbourhood boundaries in most cases are not specified (Korbin & Coulton, 1997; Lauristen, 1994). Notwithstanding, participants' ratings of neighbourhood boundaries tend to approximate administratively defined units (Coulton, Korbin, Chan, & Su, 2001; Sampson, 1997).

In summary, the literature recognizes that neighbourhood is a multidimensional construct including a geographical unit and a subjective experience of the environment within this unit. Once neighbourhood is defined, and the unit of analysis chosen, the greater complexity arises with the operationalization of the construct for research and intervention purposes. The variables employed for measuring neighbourhood, in fact, have the difficult task of representing neighbourhood as an objective environment and a subjective individual experience.

### **1.3. Measuring neighbourhood: structural characteristics and social processes.**

As we stated before, when measuring neighbourhood it's necessary to take into account its complex nature, made up of objective and subjective elements, but studies incorporating both these aspects are rare (Nicotera, 2007). Measures typically employed in research on neighbourhood effects, such as census tract data, tend to overlook the lived experience of those residing in the neighbourhood and therefore lack information about social relationships and residents' perception of the environment (Gephart, 1997).

The choice of the variables to study for measuring neighbourhood depend on the type of problem under investigation, and the hypothesized relationships between neighbourhood variables and the phenomenon to be studied (Garner & Raudenbush, 1991). As noted by Bronfenbrenner (1979, 1989), for example, certain characteristics may be more relevant at different stages of the life course; moreover, the same variable (e.g. social disorder) may be associated with an outcome when measured as an objective feature, but may predict other outcomes when measured through residents' perception. Thus, a broad assortment of variables is needed to gain a complete operationalization of the neighbourhood context.

When defining neighbourhood dimensions, a critical distinction to make is between neighbourhood structures and neighbourhood social processes (Leventhal et al., 2009). Neighbourhood structure comprises social and economic composition of the population, and is measured with indicators such as median income, employment rate and ethnic composition of the area. Neighbourhood social processes entail aspects such as social organization and the presence of institutional resources. In general, social organization refers to the capacity of residents to collaborate and work together to reach common goals, establishing common values that regulate residents' behaviour (Sampson, Morenoff, & Gannon-Rowley, 2002; Shaw & McKay, 1942). Institutional resources include the quantity and the quality of community services and organizations that promote health and general social welfare.

The variables associated with the neighbourhood structural characteristics are most commonly included in the conceptualization of the neighbourhood as an "environment", an objective context that most people can experience in a similar way. The variable describing social organization and institutional resources can fall within either the environment or place definition of neighbourhood, depending on the measurement method (Nicotera, 2007). For example, by counting the total number of youth organizations in the local community, we obtain an objective measure that represents an outsider's view, thus defining neighbourhood as an environment; alternatively, employing a measure that asks residents to evaluate the quality and variety of youth clubs and organizations will

result in residents' subjective knowledge and perception of these community resources (neighbourhood as place).

The categorization of neighbourhood variables into structural characteristics and social processes doesn't mean that they are distinct aspects that have to be studied separately: when studying neighbourhood effects on adolescent development, it's necessary to consider the transactional relationship among all of these variables. A common position among scholars, for example, conceptualizes social processes as a function of neighbourhood structure, showing how structural disadvantage can be reflected in weak social relationships among residents (Chung & Steinberg, 2006; Sampson, Raudenbush, & Earls, 1997). Furthermore, within the neighbourhood variables measuring social processes, the quality of social relationships and the ability to monitor other residents' behaviour may influence other organizational features in the local community, such as physical and social disorder (Leventhal et al., 2009). At the same time, the levels of disorder and the presence or lack of institutional resources affect the opportunities for residents to get to know each other and develop strong and supportive ties (Anthony & Nicotera, 2008; Quane & Rankin, 2006).

The distinction between structure and social processes, fundamental to systematize the innumerable variables that have been used in neighbourhood studies, represents a broad categorization that includes features which are often very heterogeneous in the same category. For the purposes of clarity, in the current work we will refer to a categorization obtained by the integration of the work of Nicotera (2003) and Leventhal et al. (2009). In particular, the following categories of neighbourhood variables will guide our work:

- a) Structural characteristics (social and economic composition);
- b) Physical composition (and social disorder);
- c) Institutional resources;
- d) Social connectedness.

Structural characteristics, as mentioned above, refer to objective features of the neighbourhood which describe the local community in terms of demographic composition; since this category of variables can only be obtained from administrative sources (although some studies employed residents' perceptions to measure neighbourhood socio-economic status), we will describe it independently from others, similarly to previous works (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009).

Physical composition and institutional resources, instead, are usually included among the social organization variables (along with the social connections within the neighbourhood), with the justification that they result from the capacity of residents to establish shared values in the local

community and monitor other residents' behaviour. Given that physical aspects and the presence of institutional resources, although related, are distinct from the social relationships among residents in a neighbourhood, we decided to include these variables in two different categories. Theoretically, the variables comprised in these two categories refer to characteristics of the neighbourhood that can be measured using both objective and subjective measures.

Finally, a category of variables that deserves to be conceptualized independently is represented by the neighbourhood social connectedness: the quality and the quantity of social relationships among residents in a neighbourhood. First of all, they are the only variables that can't be studied by employing objective measures, but need alternative methodologies to gather the residents' subjective perception of the social connectedness in the neighbourhood.

Moreover, since several theoretical constructs, partly overlapping, were developed to measure the level of social connections among residents within a neighbourhood (e.g., social capital, sense of community, social cohesion), we consider it to be more adequate to describe them separately from the other neighbourhood variables.

As shown in Table 1, according to our conceptualization, the four categories of neighbourhood dimensions can be seen in a continuum that goes from neighbourhood as an environment (neighbourhood structure) to neighbourhood as a place, described through the subjective experiences of its residents (neighbourhood social connectedness).

NEIGHBORHOOD VARIABLES CATEGORIES	POSITION IN THE ENVIRONMENT-PLACE CONTINUUM	EXAMPLES OF NEIGHBOURHOOD RELATED VARIABLES
<b>Structural characteristics</b>	environment	Percentage of affluent neighbours Median income Employment Education Public housing Age Density of population Race/ethnicity Residential mobility Percentage of female-headed households
<b>Physical composition and social disorder</b>	environment/place	Condition of housing Trash Graffiti Traffic Street conditions Crime (public drinking, drug dealing)
<b>Institutional resources</b>	environment/place	Community centres Schools Social and health services Bars Grocery stores Libraries
<b>Social connectedness</b>	place	Social cohesion Neighbouring Neighbourhood support Intergenerational closure Informal social control Collective efficacy Sense of community Place attachment Social capital

*Table 1. Categories of neighbourhood characteristics and examples of variables.*

### ***1.3.1. Neighbourhood structural characteristics***

Neighbourhood structural characteristics describe a geographical unit in terms of social and economic composition of the population. Census-based indicators of neighbourhood structure are employed in most of the studies, because of the accessibility of census data (Jencks & Mayer, 1990; Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009). The use of measures coming exclusively from the census especially characterized the earliest work in the area of neighbourhood studies (Aneshensel & Sucoff, 1996; Brooks-Gunn, Duncan, Klebanov, & Sealand, 1993; Chase-Lansdale & Gordon, 1996; Paschall & Hubbard, 1998; Simons, Johnson, Beaman, Conger, & Whitbeck, 1996).

The most commonly examined structural dimension is the neighbourhood socioeconomic status (SES), a combination of social and economic indicators. The economic composition of the population is usually measured by variables such as the percentage of affluent families, the median income of the residents and the employment rate. In order to study the social composition of a neighbourhood, researchers usually employ variables such as the mean level of education and the percentage of female-headed households.

The main aim of these indicators is to differentiate between socioeconomically advantaged and disadvantaged areas; depending on the research objectives, economic and social indicators of neighbourhood structure can be combined (e.g., Wen, Hawkley, & Cacioppo, 2006) or used separately (e.g., Chen & Paterson, 2006; Hart, Atkins & Matsuba, 2008). In general, combining different variables that measure social and economic composition of the population, researchers can obtain a more complex and complete indication of the level of advantage/disadvantage within a neighbourhood.

A common used strategy is to separate measures of neighbourhood SES into two categories: high-SES, assessing, for example, the percentage of high income, professionals, and college educated residents; low-SES, collecting information about the percentage of residents living below the poverty line or receiving public assistance, the percentage of female-headed households and the unemployment rate. This differentiation is made because the advantage or disadvantage of the neighbourhood, in terms of the socioeconomic status of the population, may be associated with distinct adolescent outcomes (Brooks-Gunn et al., 1993; Jencks and Mayer, 1990).

Other structural characteristics frequently measured in the field of neighbourhood studies are ethnic diversity and residential instability. Depending on the ethnic composition of the neighbourhood, ethnic diversity can be assessed with indicators such as the percentage of Black or Latino residents, or the general proportion of foreign born residents. In order to measure residential instability, researchers usually refer to the percentage of people who have moved away in the last

five years, the proportion of households living in the current home for less than 10 years and the percentage of homeowners (Brooks-Gunn, Duncan & Aber, 1997; Sampson et al., 1997). Even if there is a general consistency across studies in measuring these neighbourhood characteristics, specific definitions of these dimensions can be slightly different.

### ***1.3.2. Physical composition and social disorder***

The physical conditions of a neighbourhood are generally studied as a completion of structural characteristics, and enable the formulation of a more precise description of the level of advantage/disadvantage that characterizes an area. Within the framework of the social disorganization theory (Sampson, 1992; Sampson et al., 1997; Sampson & Morenoff, 1997; Shaw and McKay, 1942), neighbourhood physical conditions are thought to be the result of the residents' capacity to monitor the behaviour of others in accordance with socially accepted values and practices (Sampson et al., 2002); for this reason, they are usually included in the social organization variables.

Neighbourhood physical composition is usually described using indicators such as the housing condition, the presence of abandoned trash and graffiti and the condition of the streets (Perkins & Taylor, 1996; Perkins, Meeks, & Taylor, 1992). Along with physical features, signs of social disorder are often examined, such as public drinking, prostitution and drug dealing (Ross & Jang, 2000; Sampson & Raudenbush, 1999). Physical and social disorder can be measured both using official data (e.g., police reports), as well as relying upon residents' ratings.

### ***1.3.3. Institutional resources***

Institutional resources include the quantity and the quality of social and health services, schools, recreational programs and community centres. They represent the assortment of opportunities which are available for residents within a neighbourhood, with respect to the quality of education and health care, but also regarding the possibility for social interaction and leisure activities.

Similarly to the physical composition, institutional resources are traditionally included among the neighbourhood social organizational features, because their quality is influenced by the capacity of residents to work together for common goals and values, establishing formal and informal institutions that promote and enforce these values by regulating behaviour (Sampson et al., 2002). Notwithstanding, there is evidence that institutional resources are connected to the other neighbourhood features with more complex and reciprocal relationships. They are partly a function of the neighbourhood structure, because in disadvantaged neighbourhoods the quality of formal and informal institutions is lower (Carde & Payne, 2002; Jencks & Mayer, 1990); at the same time, the



low quality schools and services contribute to perpetrate the structural disadvantage within the neighbourhood. Moreover, although it's true that the social connections between neighbours can contribute to promote institutional resources, the presence of spaces and opportunities for activities can strongly impact the level of social cohesion in the neighbourhood (Anthony & Nicotera, 2008; Quane & Rankin, 2006).

The census does not directly measure neighbourhood institutional resources; only for some of them there is the possibility to rely on official data (e.g., the number of youth organizations in a neighbourhood). Thus, the majority of the studies have relied upon individuals' perception to evaluate the quantity and the quality of formal and informal institutions.

#### ***1.3.4. Neighbourhood social connectedness***

The level of social connectedness among the residents within a neighbourhood is an aspect investigated by more recent research in the field of neighbourhood studies (O'Campo, Caughy, & Nettles, 2010). The quantity and quality of social relationships in the neighbourhood were initially studied as a protective factor against the negative impact of socioeconomic disadvantage, that is, as mediators of the effect of neighbourhood structural characteristics on individuals' well-being (Berkman & Breslow, 1983; Browning & Cagney, 2003; Sampson et al., 1997; Sampson & Bartusch, 1998).

Several theoretical constructs, partly overlapping, have been developed to measure the level of social connections inside the neighbourhood. Much research has been focused in evaluating the effects of *neighbourhood cohesion*, which traditionally refers to the level of knowledge and social interaction among people in a neighbourhood (Duke, Skay, Pettingell, & Borowsky, 2009). Sometimes termed *neighbourhood connection* (Zeldin & Topitzes, 2002) or *neighbouring* (Kim & Kaplan, 2004; Puddifoot, 2003; Unger & Wandersman, 1983), this construct has been examined using several different measures, some focusing exclusively on the dimensions of knowledge and interaction among neighbours, some others examining the degree of individuals' personal connections inside the neighbourhood, others evaluating aspects such as the level of trust among people and willingness to help each other.

Among the neighbourhood social dimensions investigated, some constructs are specifically focused on examining the degree to which people are willing to help each other within the neighbourhood. This dimension, often included in scales measuring general connections inside the neighbourhood, in some studies is conceptualized as *neighbourhood social support* (Chaix, Isacson, Rastam, Lindstrom, & Merlo, 2007; Herrero & Gracia, 2007; Kim & Ross, 2009). The geographical proximity of neighbours, in fact, makes them potentially available to help other residents and means that they are interested in similar issues concerning the neighbourhood,

meaning they are particularly suitable to support each other. Neighbourhood support can therefore be defined as the frequency of helpful contacts with neighbours.

A theoretically related construct used to evaluate social ties in the neighbourhood is that of *intergenerational closure*, which includes the level of knowledge and interaction among adults that live in the same neighbourhood, and more specifically the social cohesion among parents of the children's friends. The construct also embodies the social ties between adults and adolescents in the neighbourhood, and the adults' willingness to monitor adolescents' behaviour and to be reference models if advice and support are needed (Fustenberg et al., 1999; Sampson, Morenoff, & Earls; 1999; Sandefur & Laumann, 1998).

The definition of intergenerational closure partly overlaps with a similar construct: neighbourhood *informal social control*, which depicts residents' availability to monitor the behaviour of others in accordance with shared norms and values (Leventhal et al., 2009), for example breaking up fights on the street or scolding disrespectful adolescents.

Measures of social cohesion and informal control have been combined in another construct, called *collective efficacy* (Sampson et al., 1999; Sampson et al., 1997). The level of collective efficacy within a neighbourhood reflects the capacity of the community to work on behalf of the common good, promoting a set of socially accepted norms and monitoring that residents' behaviour respects these social norms. The collective efficacy of a community is not simply reducible to the characteristics or behaviour of single members, but derives from the general willingness of the whole community to look out for each other and, when trouble arises, intervene to solve community issues (Odgers, Moffitt, Tach, Sampson, Taylor, & Matthews, 2009). Thus, collective efficacy is defined as a contextual characteristic which is critical to guide community members' behaviour, especially constraining children and adolescents' deviant behaviours. The focus of collective efficacy research on its role in monitoring youth behaviour means that the construct is partly overlapping with the definition of intergenerational closure. More broadly defined, neighbourhood collective efficacy represents the residents' ability to draw resources from the community and mobilize these social resources for the common good (Sampson et al., 1997).

Psychological *sense of community* has also been used to describe the social relationships within a territorial community. Although sense of community has been operationalized in several ways, its original definition is strictly connected to the neighbourhood dimensions previously presented: "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (McMillan & Chavis, 1986, p. 9). In this conceptualization, not only are the relational processes among residents included, but also the emotional dimension that links the individuals to

the neighbourhood, that is, the feeling of being part of a community whose members share common history and significant events. The emotional dimension of neighbourhood social processes has also been conceptualized as *place attachment*, a concept that received particular attention in the field of community psychology, community development and urban planning (Dallago et al., 2009; Manzo & Perkins, 2006; Vaske & Kobrin, 2001). In one of the most known and used definitions, place attachment is conceptualized as the deep emotional bond or connection that individuals develop toward specific places over time via repeated positive interactions (Altman & Low, 1992). Although the construct has been applied to territorial community of very different sizes (from the local community to the whole country), several studies on neighbourhood effects examined neighbourhood attachment along with the other neighbourhood social processes (Brown, Perkins, & Brown, 2003; Burchfield, 2009; Caughy, O'Campo, & Muntaner, 2003; Woldoff, 2002).

Concluding this brief review of the principal dimensions that have been investigated in order to describe neighbourhood social processes, it's important to focus on the broadest and currently most popular way of conceptualizing community social resources: neighbourhood *social capital*. The construct of social capital, originated and extensively studied in the field of sociology, can be defined as the social networks characterized by norms of trust and reciprocity which facilitate cooperative action among citizens and institutions (Putnam, 1993, 2000). Thus, social capital in this sense is seen as a resource of a group of people collaborating to accomplish collective goals that could not be achieved by individuals themselves (Macinko & Starfield, 2001). Until the last decade, psychologists have largely ignored social capital, based on the idea that the construct is a collection of specific community-focused cognitions and behaviours long investigated in the field of community psychology (Perkins & Long, 2002).

The main issue in studies conceptualizing neighbourhood social processes in terms of social capital is represented by a lack of agreement in terms of the conceptualization and operationalization of the construct (Bullen & Onyx, 2000; Vieno & Santinello, 2006), that makes it difficult to compare studies and accumulate knowledge for theory generation. The multidisciplinary popularity of social capital has led to many different and often vague definitions, so that in much research the construct is measured through the same scales employed for assessing other neighbourhood dimensions, such as neighbourhood social cohesion, support, informal control or collective efficacy.

In an attempt to systematize the extensive literature on social capital, Perkins & Long (2002) developed a theoretical framework including four different components: sense of community and collective efficacy (the cognitive or intrapsychic components of social capital), and citizen participation and neighbouring (the behavioural components of social capital). Establishing this

conceptualization, the authors not only pointed out that several concepts that have been thoroughly studied in community psychology are part of social capital, but also emphasized the multidimensional nature of the construct.

In general, the field of studies on social capital is a critical element for neighbourhood research, which underlines the complexity and multidisciplinary nature of the object under study. On the other hand, the effort to define it as a specific construct composed by several dimensions, which differ from study to study, has hindered the development of shared methodological bases to study neighbourhood effect; for this reason, in the field of social capital we can find studies that define and measure neighbourhood social processes in a myriad of ways, thus hindering the possibility of integrating the studies' results and of developing theoretical models.

Given the complexity in the construct definition and measure, and its multidisciplinary nature, the field of social capital in the present work is considered as a theoretical benchmark that will guide hypothesis development and interpretation of data. Instead of considering social capital as a neighbourhood feature to be defined and measured, we will use it as a theoretical basis to understand how the social processes in the neighbourhood can promote individual resources (e.g. social competencies), generating a "cycle of resources" (Putnam, 2000) that come back to the community.

The brief review of the variety of constructs used by scholars to define and measure the social relationships among residents within a neighbourhood, that was not intended to be exhaustive, aimed to emphasize two principal aspects: on one hand, the great number of definitions and operationalizations of neighbourhood social connectedness, in some studies defined as simple, unidimensional constructs (e.g. neighbourhood cohesion), in other studies conceptualized as complex constructs that include different dimensions (e.g. social capital); on the other hand, the review points out that, despite the diversity in definitions and specific measures used, there are some main common dimensions across the majority of the constructs. Neighborhood connection can thus be defined as the quantity and quality of social *interactions* among people in the neighbourhood, and the degree to which their *relationships* are characterized by *trust* and willingness to *help* each other: the social features able to turn an environment into a place, a community where individuals can collaborate to improve the common good.

As stated before, the choice of dimensions to study when measuring neighbourhoods varies depending on research aims and age of study participants. In general, given the complexity of the field, a broad assortment of variables is preferred in order to gain a complete description of the neighbourhood context, and to understand the relationships among neighbourhood variables (in

particular, structural and social processes) and the impact that they have on developmental outcomes.

#### **1.4. Main sources of data and survey methods**

##### ***1.4.1. Administrative data***

Census and other administrative data provide important information about the social and economic composition of the neighbourhood. Social indicator data, for example, include important markers of the quality of education, health services and recreational facilities, collecting information such as education expenditure per student, emergency medical calls and hospital admissions (Linney, 2000). Additionally, with the use of geographic information system (GIS) it is possible to map neighbourhood demographics, providing visual and associational data which show the distribution of neighbourhood characteristics.

Using this kind of data, neighbourhood is operationalized and measured from an outsider's perspective, describing it in terms of housing density, levels of crimes, distance from economic centres, green spaces, percentages of residential and commercial properties (Nicotera, 2007). However, especially outside the U.S., this type of data are not always available for small geographical units, making it difficult to compare international results. Moreover, collecting exclusively SES information or administrative data, although useful for measuring neighbourhood structure, it's not possible to directly evaluate the social organizational features of the neighbourhoods (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009). These measures, in fact, do not provide information about the residents' subjective experience within a particular neighbourhood, omitting to measure several conditions that actually impact families and adolescents' lives (Burton & Price-Spratlen, 1999; Ellen & Turner, 1997). Furthermore, subjective perceptions of neighbourhood quality do not always coincide with structural features measured by census and administrative data, such as percentage of residents living in poverty.

Along with the omission of neighbourhood social processes measures, there are others methodological issues to take into account when using data concerning the social and economic composition of a geographical unit. Studies typically include a combination of mean family income or percentage of female-headed families in the neighbourhood; even if combining more than one indicator allows the formulation of a more precise understanding of neighbourhood structure, composite measures make it difficult to determine the relative influence of specific neighbourhood characteristics (Jencks & Meyer, 1990). Different combinations of measures may also predict different individual outcomes, as shown in Spencer et al. (1997), whose findings demonstrate that some census indicators were more predictive of academic achievement, while other measures obtained through systematic social observation were more strongly associated with adolescents'

problem behaviours. Hence, although census data are critical information about neighbourhood structure and adequate to study some specific individual outcomes, they are not sufficient to understand all of the processes investigated by social scientists.

Despite the methodological problems in using administrative indicators, their principal strength is that they can be easily and inexpensively accessed, and researchers can integrate these data with measures assessed through other methodologies. Sampson et al. (1997), for example, created a measure of collective efficacy combining social processes indicators obtained from residents' responses to interviews (social cohesion, informal control and perceived violence) and administrative data on incidents of homicide.

In summary, pointing out the main limitations of employing administrative data doesn't mean that their use has to be limited in neighbourhood research. Given the problems associated with this type of data, the best approach is to use simultaneously measures obtained with other techniques, which may overcome some of the limitations typical of the structural measures.

#### ***1.4.2. Systematic social observations***

Some of the problems encountered with census data can be solved by the use of systematic social observations, in which trained observers collect data about neighbourhood features by utilizing a structured format (Leventhal & Brooks-Gunn, 2000). Systematic social observations, in fact, allow researchers to gather data on physical characteristics, but also on institutional resources and social activities inside the neighbourhood. For example, trained observers can track residential versus commercial buildings, abandoned buildings, the presence of litter and graffiti; at the same time, data about social interactions, such as drug dealing, gang activity and youth playing can be collected (Duncan & Raudenbush, 2001). A well-known instrument for conducting systematic observations is the Block Environmental Inventory (BEI; Perkins et al., 1992), which allows researchers to objectively measure the physical and social characteristics of urban residential neighbourhoods. The procedure involves trained raters' observations of several neighbourhood features, including incivilities (such as litter), vandalism, abandoned houses, signs of territorial functioning (such as decoration in the yard), and defensible space features, such as lighting and surveillance opportunities.

Although systematic social observations tend to consider neighbourhoods as environments, by collecting data with a structured and objective methodology, the measures obtained by the observers are usually correlated with residents' perceptions of the same neighbourhood characteristics obtained by conducting interviews in the community (Sampson & Raudenbush, 1999). Hence, by measuring neighbourhoods using social observations, it's also possible to access information about residents' experience of certain neighbourhood features (neighbourhood as a place), although the

method doesn't account for their subjective perceptions of other neighbourhood social processes (for example, social relationships and networks).

The main limitation of systematic social observations is related to the fact that they are expensive and time consuming, because of the first phases, in which the observers have to be well-trained to use the structured format. Moreover, coding schemes for the interpretation of data collected have to be carefully prepared, to avoid the risk of imposing the researcher's perspective by the use of a priori categories.

#### ***1.4.3. Neighbourhood rating scales***

One of the most common methods for collecting data on neighbourhood characteristics is represented by the neighbourhood rating scales, which allows the collection of data on residents' perception of physical condition and resources as well as neighbourhood social processes. When administering rating scales to residents, researchers can approximate the description of the neighbourhood from an insider's point of view, obtaining measures of neighbourhood as a place. In order to gain a more precise understanding of the residents' perception, the ideal method would be to develop questionnaires in collaboration with them; since this procedure is expensive and time intensive, usually the questions of the rating scales are pre-determined by researchers, limiting their ability to reflect the subjective experience of neighbourhood residents.

Another issue with the use of rating scales is associated with the reliability of aggregating individual perception to obtain a contextual measure of neighbourhood characteristics. Researchers in this field generally consider it to be more adequate to study neighbourhood effect at an aggregate level, using techniques such as hierarchical linear modeling (HLM) (Bryck & Raudenbush, 1992). Although this approach reflects the theoretical definition of the neighbourhood as a context, aggregating residents' points of view, there can be problems with applying individual responses to represent contextual aspects of the neighbourhood. In general, the individual perceptions of some characteristics can be reliably aggregated to measure neighbourhoods at the contextual level, for example physical composition and social disorder; other aspects, especially the ones related to social interactions and relationships, are not as reliable as contextual measures of neighbourhood (Coulton, Korbin, & Su, 1996). Some of the social processes within a local community may be too subjective to be aggregated in a single measure that represents the mean perception of the residents, although they can be influenced by the same neighbourhood features (e.g. social disorder); for this reason, when studying specific aspects of social interactions and relationships, researchers often use neighbourhood indicators measured at the individual level.

The subjective nature of variables assessed with neighbourhood rating scales makes it critical to consider that views of neighbourhood can be very different for children, teenagers, adults and the

elderly, as shown in various studies (Berg & Medrich, 1980; Burton, Price-Spratlen, & Spencer, 1997; Lee & Campbell, 1997). For example, adults can appreciate a neighbourhood for the good quality of the schools and the availability of shopping centres, while for adolescents, aspects such as the closeness to their friends' homes and the presence of meeting places can be more relevant. As a consequence, youth perceptions of some neighbourhood features represent uniquely important predictors of developmental outcomes, along with adults' perceptions.

The differences in neighbourhood perception at different ages implies that neighbourhood rating scales developed with adults can be inaccurate when employed with younger people, so that specific rating scales have to be developed for the specific age group of the participants. Although a myriad of questionnaires have been developed to assess neighbourhood characteristics (such as the Perceived Residential Environment Quality, developed by Bonaiuto et al., 2002), few instruments were specifically created to measure adolescents' perspective. An instrument for children was designed in the 1940s, but it was neither described in detail nor adopted in later studies (Kerr & Remmers, 1941).

The need for a neighbourhood scale to gather adolescent perceptions of the local community has been underlined by some scholars (Pretty, Andrewes & Collett, 1994; Pretty & Chipuer, 1996; Pretty, Conroy, Dugay, Fowler, & Williams, 1996), who used the Sense of Community Index (SCI) developed by McMillan and Chavis (1986) with an adolescent population. Similarly to other instruments developed for adults, Chipuer and Pretty (1999) found the Sense of Community Index to be inadequate in depicting all the neighbourhood features salient in adolescence. Specifically, some items were inappropriately worded for young people, and the instrument was found not to include all aspects of adolescents' views of the neighbourhood, omitting aspects such as places to socialize and have fun. Based on these findings, Chipuer et al. (1999) developed the first measure of neighbourhood characteristics that was derived from adolescents' perceptions of their neighbourhoods. The authors carried out semi-structured interviews with adolescents, asking them what they did and did not like about their neighbourhoods, and what they would have changed if there had been the opportunity. A content analysis of the interviews allowed the creation of a scale composed of 22 items, grouped into four dimensions: *support* (the availability of residents to help each other); *friends* (friendship networks in the neighbourhood); *activity* (the availability of places to go and things to do in the neighbourhood); *safety* (the presence of signs of social disorder, such as fights and drug dealers in the neighbourhood). The questionnaire showed good psychometric properties in terms of convergent and discriminant validity and reliability (Chipuer et al., 1999).

Recently, Cicognani et al. (2006) have developed another tool which can be used for assessing neighbourhood context among adolescents: the Sense of Community scale for adolescents



(SoC-A), the first instrument on neighbourhood characteristics validated in Italy. Although the questionnaire specifically investigates sense of community, and can be employed for investigating communities of different sizes (e.g., town or neighbourhood), its subscales are particularly adequate in depicting the neighbourhood features salient in adolescence. The scale was developed based on the theory of McMillan and Chavis (1986) and focus groups conducted with adolescents. Based on the work of Chipuer et al. (1999), a subscale investigating peer relationships in the neighbourhood was also included, thus creating an instrument comprising five dimensions: satisfaction of needs and opportunities for involvement, support and emotional connection with peers, support and emotional connection in the community, sense of belonging, and opportunities for influence. The validation study showed that the scale has good reliability and validity. More recently the authors developed a brief version of this instrument (reducing the number of items from 36 in the original version, to 20 in the new version) to make it easier to use in different contexts (Chiessi, Cicognani, & Sonn, 2010).

Comparing the two instruments, we can note a partial overlap in some areas of investigation. In particular, the two questionnaires both examine the relationships that adolescents develop with peers in the neighbourhood, the availability of places and activities (two salient characteristics in adolescence), and the quality of the relationships among residents within the neighbourhood (with a particular emphasis on the willingness to help each other), one of the social organizational features most frequently investigated in neighbourhood research with youth as well as adult populations.

Another instrument recently developed for measuring children's and adolescents' neighbourhood perception is the "Children's and Adolescents' Neighborhood Environment Perception" (CANEP) scale (Bisegger, Cloetta, & Ravens-Sieberer, 2008). The questionnaire, despite being constituted by six items covering dimensions which are usually studied separately (such as safety, opportunities for activity, and neighbourhood cleanliness), has the advantage of having been validated in parallel in seven European countries and in five languages, showing good validity and reliability.

Finally, Bass & Lambert (2004) employed a neighbourhood rating scale created for research with youths, the Neighborhood Environment Scale (NES); this instrument was specifically developed to measure the perception of security and the exposure to social disorder in the neighbourhood.

In summary, neighbourhood rating scales have the strength to approximate the description of the neighbourhood from an insider's point of view, thus obtaining a measure of the lived experiences of residents in the neighbourhood. Although neighbourhood perceptions are associated not only with contextual but also with individual characteristics, making it difficult to combine

individual perceptions as if they represented contextual aspects of the neighbourhood (especially when measuring social relationships in the neighbourhood) (Coulton et al., 1996), information obtained from rating scales can be used in conjunction with census data for creating neighbourhood typologies.

#### ***1.4.4. Structured and unstructured interviews***

Neighbourhood context can also be measured with structured, semi-structured and unstructured interviews with residents. As with rating scales, these measures conceptualize the neighbourhood as a place, and can be utilized to assess social processes, institutional resources, as well as physical conditions and the socio-economic composition of the community. Information about neighbourhood that derives from interviews with residents allows researchers to better capture the insider's view, with great detail about social processes and meanings (Nicotera, 2007). The main limitation of this approach is associated with the same detractors of the other subjective measures, that is, a bias limiting the internal validity when used as a predictor of self-reported outcomes (Evans, 1999).

In unstructured or semi-structured interviews, researchers can collect the narratives of the residents about their neighbourhood, thus obtaining a detailed description of their lived experience in the local community. Starting from a few general questions or themes, residents are free to narrate their experience within the neighbourhood, elucidating, for example, the processes through which structural constraints and normative systems can influence individual behaviour (e.g., Figuera-McDonough, 1998). This methodology is also easy to employ with younger people, because of the possibility of adapting the guide questions to the developmental stage of the participants.

Structured interviews can also provide important information about the subjective experiences of residents within the neighbourhood. These techniques are similar to the other interview strategies, but the individuals' narratives are governed by more strict guidelines.

One of the most emblematic examples of these techniques is represented by the work of Hart (1979), in which children led the researchers in "place expeditions" around their neighbourhood. The neighbourhood walk is a useful strategy to use with young people, providing an opportunity for youths to describe their lived experience in the neighbourhood by visiting the places where they usually spend time. The strategy involves taking a walk in the neighbourhood with the child, who describes the place of his or her social networks or environmental facilities. Although the neighbourhood walk with children and adolescents is an expensive and time consuming technique, it allows them to recall their favourite sites in the local community, and the activities and interactions that take place there.

A different version of the neighbourhood walk, that involves adult and youth participants and facilitates a deeper understanding of neighbourhood characteristics, is represented by Community Asset Mapping (Shinn & Toohey, 2003; Kretzmann & McKnight, 1993). This technique, in which neighbourhood residents and external observers are involved in mapping neighbourhood capacities, provides valuable information for community-based interventions based on the existing resources. Moreover, the asset mapping has the strength to put together the residents' subjective experience of the neighbourhood and a more objective, external point of view about neighbourhood characteristics.

Among the qualitative methods, some other techniques have been employed by researchers, to develop strategies able to better capture children and young people's point of view. For example, written descriptions (Nicotera, 2005), photographs (Taylor, Wilely, Kuo, & Sullivan, 1998) and drawings (Parameswaran, 2003; Ramadier & Moser, 1998) have been utilized to give youth the opportunity to describe their neighbourhood in creative ways.

The variety of the methodologies employed in neighbourhood studies reflect the complexities of an object of investigation that is both an "environment" with objective characteristics as well as a "place" that people of different ages or backgrounds can experience differently. Each strategy, from objective quantitative methods (administrative data), to the more subjective quantitative techniques (systematic observations and rating scales), to qualitative methods (interviews, written description, photographs, drawings), is equally important and the choice depends on research hypotheses or practitioners' purposes. The strengths and the limitations of a particular technique are usually complementary to the ones of another strategy, so that employing mixed measures of neighbourhood context in the same study is the best way to gain a complete depiction of the local community. As can be noted in the review of the neighbourhood measures, quantitative research is particularly adequate in measuring structural features, while qualitative studies are more efficient in the description of social and processual aspects. The use of mixed methods (Anthony & Nicotera, 2008; Nicotera, 2008) can combine the advantages of various research strategies, overcoming at the same time some of the limitations that characterize each measure.

### **1.5. Study designs in neighbourhood effects research**

In the field of neighbourhood studies, four principal designs have been utilized to study neighbourhood influence on youth development: national or multisite studies, city or regional studies, neighbourhood-based designs and experimental or quasi-experimental designs (Leventhal & Brooks-Gunn, 2000, 2001; Leventhal et al., 2009).

National or multisite studies generally include families and neighbourhoods characterized by a wide range of socioeconomic statuses, allowing neighbourhood effects to be estimated based on a

limited number of individuals per neighbourhood. Most of these studies were not designed with the specific aim of examining neighbourhood influences, but capitalized on the opportunity to investigate large data sets including a wide distribution of neighbourhood types. To date, the majority of the research in the field has been conducted using this type of non-experimental design, such as the Panel study of Income Dynamics (PSID; Hill, 1991), the National Longitudinal Survey of Youth-Child Supplement (NLSY-CS; Baker & Mott, 1989) and the Infant Health and Development Program (IHDP; Gross, Spiker, & Haynes, 1997).

City or regional studies focus on neighbourhood effects within a city or regional area. In this kind of design, a wide range of neighbourhood typologies can be included, or the studies can focus on specific types of neighbourhood (generally the most disadvantaged in terms of socioeconomic status). Moreover, sampling is not usually done across neighbourhoods, but on the basis of school attendance. For this reason, both the number of youths per neighbourhood, as well as the number of neighbourhoods investigated, can vary widely, hindering the possibility of using hierarchical or multilevel modelling techniques that examine the neighbourhood context at the aggregate level. Examples of studies conducted with this design include the Pittsburgh Youth Study (Loeber & Wilkstrom, 1993) and the Pathways to Adolescence Study (Spencer, Cole, Jones, & Swanson, 1997).

The main characteristic of neighbourhood-based designs is the focus on neighbourhood context from the first stages of the study, with sampling assuring the inclusion of certain types of neighbourhoods. The sampling is also designed to include a sufficient number of participants in each neighbourhood, in order to use multilevel modelling techniques. Although this is considered a design with a strong methodology, researchers that carried-out neighbourhood-based studies have shown that neighbourhood units tend to be internally heterogeneous, so that more variability is generally found within neighbourhoods than between neighbourhoods (Cook, Shagle, & Degirmencioglu, 1997; Furstenberg et al., 1999). The most well-known example of a study employing this design is the project on Human Development in Chicago Neighborhoods (PHDCN; Sampson, Raudenbush, & Earls, 1997).

Experimental designs randomly assign families to reside in particular types of neighbourhoods. These studies are conducted in the context of housing mobility programs, in which residents are relocated from one neighbourhood to another one, typically more advantaged in terms of socioeconomic status. Since the housing programs cannot serve all interested families, the selection of neighbourhoods and participants is often random, or based on housing availability (quasi-random). Using these designs it's possible to minimize selection bias (the fact that families have some choice related to the neighbourhood in which they live, and some variables associated

with this choice can influence the estimated neighbourhood effects) giving a better estimate of neighbourhood effects. The first quasi-experimental study on neighbourhood context was the Gautreaux Program, carried out in 1976 and resulting from the court order to desegregate public housing in Chicago (Rosenbaum, Popkin, Kaufman, & Rusin 1991). The most famous experimental study is the Moving to Opportunity (MTO) program, in which families of five different cities were randomly assigned to move from public housing in high-poverty neighbourhoods to private housing in low-poverty neighbourhoods (Goering & Feins, 2003).

More recently, natural experiments examining the effects on residents of some external changes in the neighbourhood were carried out (Fauth, Leventhal, & Brooks-Gunn, 2008). Although this approach is relatively new, and it has never been employed in studies with adolescents, natural experiments represent a promising strategy for future research (Leventhal et al., 2009).

As in the case of neighbourhood measures, each design has its strengths and limitations; however, non-experimental studies that incorporate neighbourhood in the design phase (neighbourhood-based) and experimental designs provide a better estimate of neighbourhood effects.

## **1.6. Summary and conclusions**

Historical roots and methodological issues of neighbourhood studies were presented in this chapter. The origins of the interest for the neighbourhood as a social context relevant to adolescent development can be found in the historical changes that occurred during the nineteenth century in the United States. In the context of increasing industrialization, immigration and urbanization, the central aim of the first studies was to understand the consequences that living in urban centres can have in terms of problem behaviours such as crime and delinquency (Park, 1916; Shaw and McKay, 1942).

At the same time, the increasing importance of ecological models in developmental psychology (Bronfenbrenner, 1979), emphasizing the influence of social contexts on human development, further raised interest in studying neighbourhood effects on children and adolescents' well-being. These theoretical models, along with the increasing empirical evidence, have widened the original interest in understanding the negative consequences of neighbourhood socioeconomic disadvantage, examining a variety of adolescent outcomes and trying to elucidate the mechanisms through which neighbourhood characteristics can impact human development (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009).

Since the first studies were conducted, the field has widely evolved, making evident the complexity of studying neighbourhood context. As Nicotera (2007) points out, the research on

neighbourhood context starts from its conceptualization, acknowledging both its objective and subjective qualities. Neighbourhood is a multidimensional construct including a geographical unit and a subjective experience of the environment within this unit, so that its operationalization for research and intervention purposes is particularly complex. As noted in the chapter, there is a wide variety of neighbourhood dimensions, and consequently sources of data, from which researchers can choose.

In general, starting from a definition of neighbourhood that encompasses both structural and social characteristics, which can be measured with both objective and subjective methods, the ideal strategy is to integrate more than one neighbourhood dimension, thus obtaining a depiction of the local community as an environment and as a place.

Since no practitioner or researcher has the resources to assess neighbourhood on all its dimensions, and different neighbourhood features can be salient depending on research objectives, choices have to be made.

In particular, the unit of analyses has to be defined based on the national contexts and available administrative boundaries, but also in relation to participants' developmental stage and specific aims of the study. Similarly, the choice of neighbourhood dimensions to study depends on the outcome of well-being under investigation, and has to be guided by theoretical frameworks linking specific neighbourhood features to a particular aspect of adolescent well-being.

The studies conducted to date have used a wide variety of neighbourhood definitions, measures and designs, so that it's difficult to integrate the empirical evidence collected until now. The first major review on neighbourhood effects on children and adolescent development (Jencks & Meyer, 1990) showed the difficulty of detecting a general pattern of influences that recurs across all outcomes examined (educational attainment, cognitive skills, criminal activity, sexual behaviour and economic success). Leventhal & Brooks-Gunn (2000, 2004), with a review carrying on the work of Jencks & Meyer (1990), also underlined the complexities of synthesising empirical evidence about neighbourhood effects on adolescent development, because of the variety of definitions, measures, and outcomes of well-being investigated. Although their work focused on neighbourhood structural characteristics, which are usually measured with objective indicators, strong evidence was only found concerning the relationship between neighbourhood SES and adolescent academic achievement.

The variety of methods employed in neighbourhood research is an obstacle to the integration of empirical evidence, especially with studies investigating social processes, which are defined and measured using several different constructs, making it difficult to compare results; for this reason, no literature reviews have been carried out to identify general patterns in the studies. Moreover,

changing the focus from adolescent academic achievement and problem behaviour to outcomes of positive development is becoming more common, and a synthesis of this relatively new line of research is needed.

In the next section, along with the presentation of the main literature on neighbourhood effects conducted to date, we will expand the focus of older reviews, summarising the principal evidence about the association between neighbourhood social processes and positive adolescent development.

## CHAPTER 2

### NEIGHBORHOOD CONTEXT AND ADOLESCENT WELL-BEING: WHAT WE KNOW AND WHAT STILL NEEDS TO BE LEARNED

*“D’una città non godi le sette o settantasette meraviglie,  
ma la risposta che dà a una tua domanda”*

*-Italo Calvino, 1972-*

#### **2.1. The importance of neighbourhood context in adolescence**

According to a common belief and to social scientists (Rankin & Quane, 2002; Taub et al., 1977), the importance of neighbourhoods in the daily lives of urban residents is in decline. Technological progress in transportation and communication have made it easier for many people to spend their time in spatially dispersed places, so that the relationships among urban dwellings are less and less based on geographical proximity (Sampson, 1999).

However, the lives of youth tend to be more geographically circumscribed than adults, so that the neighbourhood of residence represents the context where children and adolescents usually receive social, health and educational services, learn about cultural practices and expectations of others, and develop a sense of belonging and safety (Bronfenbrenner, 1986; Coulton, 1997; Furstenberg & Hughes, 1997). The experiences in the neighbourhood context appear to vary across individuals and developmental stages; the conceptualization of neighbourhood and the amount of contact with people in the local community are very different for children than for adolescents, and they even change in different phases of adolescence. Direct experiences of neighbourhood factors for very young children, for example, are rather infrequent, and the area that they conceive to be their neighbourhood is relatively small. This is the reason why neighbourhood effects on children are thought to be mediated through their influence on parents. However, going from childhood through adolescence, the contact with the neighbourhood expands, and its influence becomes stronger and more direct.

Early adolescence, characterized by a number of physical, cognitive and emotional changes, can be a challenging period for young people. First of all, early adolescents must handle the transition from elementary to middle school and to high school, when performance standards increase and make it more difficult to obtain good grades (Eccles, Midgley, Wigfield, Buchanan, & MacIver, 1993) and to find time for participation in extracurricular activities. At home, conflicts



with parents arise, especially over autonomy, while relationships with peers become more central in the adolescents' lives (Brown, 1990; Ciairano & Bonino, 2007).

Relations with the neighbourhood of residence also change, because early adolescents, experiencing an increased autonomy from parents, are allowed to explore different settings; their range of action, however, is still limited. For this reason, the neighbourhood is a critical context in adolescent lives, representing at the same time a source of risks, especially when their exposure to the neighbourhood is unsupervised (Allison et al., 1999), and a source of strengths for a positive development. Many of the people that adolescents come into contact with and the activities in which they participate, in fact, are often located in their immediate neighbourhood of residence. Living in a neighbourhood characterized by concentrated disadvantage often exposes adolescents to contact with crime and delinquency, making it easier for them to be involved in different types of risk behaviours (Jencks & Mayer, 1990; Leventhal & Brooks-Gunn, 2000, 2004; Leventhal et al., 2009). In the neighbourhood of residence, however, adolescents can also find several opportunities for positive development, creating supportive networks with people and getting involved in local organizations (Leffert et al., 1998; Pretty, 2002).

## **2.2. From neighbourhood disadvantage to neighbourhood resources**

As stated in the previous section, the field of neighbourhood studies originated in the United States during the nineteenth century, when increasing urbanization raised concerns about the negative consequences of growing up in disadvantaged neighbourhoods (Leventhal et al., 2009). During the 1970s and the 1980s, the spread of concentrated poverty deriving from demographic changes and increased unemployment, further raised interest in neighbourhood factors. Thus, the principal aim of the first studies was to understand whether living in neighbourhoods with different structural characteristics impact on children and adolescent development, with the theoretical assumption that the exposure to neighbourhood risks is partly responsible for the fact that youths in disadvantaged neighbourhoods have lower levels of several behavioural and socio-emotional outcomes.

A number of studies report that academic achievement, as well as emotional and behavioural problems, is influenced by neighbourhood structural disadvantage. In order to synthesise the main research results on neighbourhood effects, Jencks and Mayer (1990) conducted the first systematic review of studies that evaluated the impact of neighbourhood socioeconomic status and ethnic composition on youth educational attainment, criminal activity and sexual behaviour.

Regarding educational achievement, the scholars pointed out that growing up in a neighbourhood with a low socio-economic status has a negative impact on adolescent academic outcomes, even when youth family characteristics are controlled. With respect to criminal

behaviour, the situation was more complex, showing some inconsistent results. The study conducted with the more adequate methodology included in the review (Johnstone, 1978) demonstrated that living in a disadvantaged neighbourhood may have different influences on adolescents coming from families with different socioeconomic levels, reducing the likelihood of committing crimes in youths with lower socioeconomic status. The evidence on how neighbourhoods influence youth sexual behaviour was not strong either, but it suggested that living in poor neighbourhoods was associated with an increased likelihood of being involved in risky sexual behaviours (such as not using contraception).

The work of Jencks & Mayer (1990) underlined the difficulty of detecting a general pattern of influences across all outcomes examined, and enlightened the methodological limitation of the earlier studies.

In order to carry on and integrate with more recent studies the first review about neighbourhood effects on adolescent development, Leventhal & Brooks-Gunn (2000) conducted a review of the studies published between 1990 and 1998. The principal aim of their work was to synthesise the evidence on the association between neighbourhood structure and several adolescent outcomes: academic achievement, emotional problems and risk behaviours. Across the studies, the most consistent evidence was found for the association between neighbourhood SES and adolescent academic achievement, showing how living in an area with a higher level of socioeconomic disadvantage is associated with worse educational outcomes. Evidence on the negative impact of neighbourhood disadvantage on emotional and behavioural problems was less consistent, although subsequent reviews from the same authors (Leventhal & Brooks-Gunn, 2004; Leventhal et al., 2009) concurred with the initial conclusion that neighbourhood structure negatively impacts academic achievement and increases the likelihood of experiencing emotional and behavioural problems.

These systematic reviews, along with the others conducted in the field (e.g., Elliot et al., 1996; Furstenberg et al., 1999), generally confirm the difficulty of detecting general patterns of influence in studies employing different methodological designs, and conclude that neighbourhood effects on adolescents are rather modest (explaining, on average, between the 5% and the 10% of the variance in outcome variables), when more proximal contexts (such as family) are taken into account. However, the studies conducted until the end of the twentieth century employed census-derived measures of neighbourhood structure, omitting to consider the role of neighbourhood social processes such as the presence of institutional resources and the social relationships among residents. Yet, the importance of neighbourhood social characteristics was underlined as far back as the beginning of the last century, when Park (1916) contended that neighbourhood structural

features influence social organization of the local community, thus affecting residents' attitudes and behaviours. The work of Shaw and McKay (1942) also showed that in neighbourhoods with high levels of socioeconomic disadvantage, relationships among residents tend to be less cohesive, and institutions weaker and less effective. As a result, in these neighbourhoods families and youth do not have access to a range of community social resources that promote socially accepted behaviours.

Recent studies, analysing the structural and social features of neighbourhoods in greater depth, underlined that not all disadvantaged neighbourhoods are alike in terms of their social organizations and the general well-being of the residents. Instead, levels of social connectedness and institutional resources vary across disadvantaged neighbourhoods, and even more importantly, higher levels of social organization can protect against the negative consequences of neighbourhood poverty or residential instability (Bursik & Grasmick, 1996; Colder, Mott, Levy, & Flay, 2000; Cantillon, 2006). These results led social scientists to study in greater depth the formal and informal neighbourhood social resources that protect adolescents from experiencing emotional and behavioural problems (Cantillon, Davidson, & Schweitzer, 2003; Coulton, Korbin, Su, & Chow, 1995; Gephart, 1997; Sampson et al., 2002).

Until the last decade of the past century, despite the increased attention of social sciences in examining the role of neighbourhood social resources, the main focus remained on the relationship between neighbourhood structural characteristics and academic achievement, risk behaviours (such as delinquency and substance use) and emotional problems (for example, depressive symptoms).

During the last decade, along with more sophisticated studies that maintained the original focus on neighbourhood structural disadvantage (e.g., Fauth, Leventhal, & Brooks-Gunn, 2007), and research examining the protective effect of neighbourhood resources, scholars were increasingly interested in the *promotive* (Furstenberg et al., 1999) effect that the resources in the local community may have on adolescent positive outcomes (such as self-esteem, self-efficacy and social competencies).

Based on the reviews in the field of neighbourhood research, as well as on studies conducted in recent years, the following sections aim to synthesise the main results of the literature about neighbourhood effects on adolescent development. In reviewing the research evidence, we will follow the categorization most frequently adopted in the literature, presenting the studies that examined the relation between neighbourhood structural and social characteristics and different type of adolescent outcomes: academic achievement and emotional and behavioural problems. Moreover, reflecting the evolution of the field, which in the last decade has integrated a deficit-focused perspective with the evaluation of neighbourhood resources, a literature review of more

recent studies investigating the role of neighbourhood context in promoting subjective well-being and social competencies will be presented.

### **2.3. Neighbourhood effects on adolescent academic achievement**

In the field of neighbourhood studies, the strongest evidence regards the association between neighbourhood socioeconomic status and adolescent academic achievement. Living in a neighbourhood where people, on average, have a low SES, is associated with worse academic outcomes in adolescence, while neighbourhoods with higher SES residents are beneficial for school achievement. This result is particularly strong because the same pattern of findings was identified in non-experimental research as well as in some experimental and quasi-experimental studies (Leventhal et al., 2009).

Most of the research on neighbourhood SES influence on early adolescents' attainment derives from studies conducted with non-experimental city and regional designs employing census data (Connel & Halpern-Felsher, 1997; Entwisle, Alexander, & Olson, 1994; Halpern-Felsher et al., 1997). Globally, these studies documented a positive association between neighbourhood high SES and different outcomes of adolescents' achievement, such as mathematical skills and grade average. On the other hand, these studies have shown the association between residing in a neighbourhood with a low SES and having poor academic outcomes. Additionally, there is some evidence that neighbourhood socioeconomic disadvantage has stronger effects on adolescent boys' achievement than that of girls (Entwisle et al., 1994; Halpern-Felsher et al., 1997).

These findings were confirmed in a recent longitudinal study, showing that neighbourhood SES from childhood through to adolescence was associated with educational attainment in young adulthood (Boyle, Georgiades, Racine, & Mustard, 2007).

Studies with older adolescents, mostly based on national datasets, have also confirmed the association between neighbourhood structural advantage/disadvantage and youth academic outcomes, such as years of completed education, high school graduation and college attendance (Brooks-Gunn et al., 1993; Duncan, 1994), finding a stronger effect for European-American adolescents than for African-American young people. Yet, another study showed that, in conditions of particular disadvantage, when the percentage of professional workers is under five percent, neighbourhood effects are more pronounced, particularly in African-American males (Crane, 1991).

Other recent non-experimental studies have shown an association between neighbourhood socioeconomic disadvantage and school drop-out (Crowder & South, 2003; Harding, 2003). Also in these studies, a low neighbourhood SES resulted in a stronger impact on African-American adolescents, whose likelihood of dropping out of school was higher compared to their European-American peers.

As we stated before, results of experimental and quasi-experimental studies partially concur with the findings from non-experimental research. In a study in which adolescents residing in poor urban neighbourhoods moved to a more socioeconomically advantaged area, youths who relocated had a higher likelihood of graduating from high school, attending college and finding a job, compared to adolescents who remained in neighbourhoods with low socioeconomic status (Rubinowitz & Rosenbaum, 2000). However, other studies found mixed results: for example, in an evaluation of the MTO program using an experimental design, there were no differences in academic achievement between young people who moved into more affluent neighbourhoods and their peers who stayed in disadvantaged neighbourhoods (Sanbonmatsu, Kling, Duncan, & Brooks-Gunn, 2006); moreover, in another quasi-experimental study evaluating a moving program, adolescents who moved to higher income neighbourhoods showed poorer academic outcomes than youths who remained in disadvantaged areas (Fauth et al., 2007; Leventhal, Fauth, & Brooks-Gunn, 2005). A possible explanation of these findings can be related to the fact that moving has negative consequences on adolescents' social networks, thus nullifying the benefits of a more advantaged neighbourhood (Adam, 2004).

Regarding the possible effects of the neighbourhood ethnic composition on adolescent achievement, the results are mixed, with studies reporting a negative association between residing in a neighbourhood with a high percentage of African Americans and the years of schooling completed in African Americans (e.g., Duncan, 1994), and other studies showing a positive association between ethnic diversity and African Americans' educational attainment (e.g., Halpern-Felsher et al., 1997). In a more recent study, the negative effect of neighbourhood ethnic diversity on school achievement was confirmed, showing a higher likelihood of dropping out of high school for students residing in highly diverse neighbourhoods (Van Dorn, Bowen, & Blau, 2006). No significant effects of neighbourhood residential instability on adolescents' achievement were found in the literature; a study showed a negative effect of residential instability on school outcomes only at the individual level (Quane & Rankin, 2006), probably because adolescents who frequently change neighbourhood and schools have to adapt to new teachers and classmates (South, Baumer, & Lutz, 2003).

Although the studies examining the link between neighbourhood social organization and adolescents' academic achievement are less numerous, there is some evidence regarding the association between physical and social disorders, institutional resources, neighbourhood social connectedness and youth's school outcomes.

The work of Meyers and Miller (2004), for example, documented a link between neighbourhood physical and social disorder and academic achievement. In their study, high levels

of perceived physical and social problems in the area of residence directly increased adolescents' school problems; moreover, incrementing the likelihood of coming into contact with deviant peers, the presence of physical and social incivilities negatively impacted academic achievement. This finding was confirmed by more recent studies showing the link between poor physical conditions in the neighbourhood (as measured employing a community survey) and adolescents' academic achievement (e.g., Woolley et al., 2008). Coherent to these results, Henry et al. (2008) found that the perceptions of neighbourhood risks (in terms of physical and social hazards) by Latino adolescents in immigrant families, rather than neighbourhood structural characteristics, was negatively associated with grade point average.

Schools represent one of the most important neighbourhood institutional resources, and their quality is associated with adolescents' educational outcomes (Card & Payne, 2002; Jencks & Mayer, 1990), not only because of the different levels in teaching quality, but also because these schools may lack a set of norms that encourage and value academic success. Another institutional resource which demonstrated an impact on youth academic achievement is the availability of organizations in the local community: the study of Quane and Rankin (2006) showed that participation rates of youth were higher in neighbourhoods with organizational resources for adolescents, and the participation was directly associated with heightened academic expectations and stronger commitment to school, similarly to other studies (Baker & Witt, 1996; Halpern, 1992; Holland & Andre, 1987; Oden, 1995).

Regarding the social relationships among residents within a neighbourhood, there is some evidence that supports the association between social connectedness in the local community and adolescents' academic achievement. Neighbourhood collective efficacy, in fact, resulted in the promotion of the affiliation with neighbourhood prosocial peers who value academic success (Quane & Rankin, 2006; Rankin & Quane, 2002). Peers' positive attitudes and behaviours toward school may, in turn, have a positive influence on adolescents' academic commitment, providing them with emotional and practical support, and teaching them to value academic achievement (Baker & Witt, 1996; Halpern, 1992; Holland & Andre, 1987; Oden, 1995). The work of Cook et al. (2002) also demonstrated a positive link between a composite measure of neighbourhood social organization (including dimensions such as social cohesion, social control and availability of resources) and adolescents' academic achievement, although the effect was modest; in the study, the influence of neighbourhood social characteristics on educational attainment was only larger when considering the joint effect of all the four contexts examined (neighbourhood, family, friends and school). More recent research seems to go in the same direction, with a study demonstrating a positive association between the levels of neighbourhood social capital (defined as the level of

social interaction among residents and their willingness to help each other) and adolescents' academic achievement (Woolley et al., 2008). In particular, in the study, higher levels of bonding social capital were related to higher reading and mathematical skills for children in first grade through to eighth grade; furthermore, neighbourhood social capital resulted in an increasing effect from childhood to early adolescence.

Overall, the existing evidence supports the idea that the neighbourhood is an important context for adolescent academic outcomes. While the more consistent results regard the neighbourhood SES effects, results regarding the other structural features are not so clear. Additionally, recent research is increasingly recognizing the role of neighbourhood social organization on academic achievement, showing how neighbourhoods with low levels of physical and social disorder, where many resources are available and there are strong relationships among residents, can benefit adolescents' school outcomes.

#### **2.4. Neighbourhood effects on adolescent emotional and behavioural problems**

Since the early studies on youth delinquency and neighbourhood structural disadvantage, evidence has grown that supports the relation between neighbourhood socioeconomic status and adolescent behavioural and emotional problems. The most consistent results in the literature regards the negative influence of living in neighbourhoods with high levels of structural disadvantage on the development of criminal and violent behaviour in adolescence (Leventhal et al., 2009), deriving from studies that employed a wide variety of SES indicators (such as median income, unemployment, female headship). Compared to the literature results on academic achievement, however, neighbourhood influence on behavioural and emotional outcomes tend to vary by gender.

Most of the early findings examining the effects of neighbourhood SES on psychological and behavioural problems derive from studies using city or regional samples, in which neighbourhood dimensions were measured relying on census data (Leventhal et al., 2009). Residing in a neighbourhood with a low SES was associated with increased psychological distress in adolescent boys, while the proportion of single-parent families increased the likelihood of developing conduct problems among girls (Simons et al., 1996). Similarly, in different studies on adolescent boys, low neighbourhood SES resulted in an increased risk of engaging in delinquent and criminal behaviours, with stronger effects among younger adolescents (Bursik & Grasmick, 1993; Loeber & Wikstrom, 1993; Ludwig, Duncan, & Hirschfield, 2001; Peeples & Loeber, 1994).

Several recent neighbourhood-based studies confirmed the association between neighbourhood socioeconomic disadvantage and adolescents engagement in a wide range of problem behaviours, such as affiliation with deviant peers, substance use, aggressive behaviour and other externalizing problems (Beyers, Bates, Pettit, & Dodge, 2003; Brody et al., 2001; Chen &

Paterson, 2006; Gibbons et al., 2004; Obeidallah, Brennan, Brooks-Gunn, & Earls, 2004). Similarly to earlier studies, the impact of neighbourhood low SES on the development of problematic behaviours varied by gender, without a general pattern of influence for boys and girls.

Other recent studies, using the National Longitudinal Study of Adolescent Health, found similar results, showing that neighbourhood low SES was associated with adolescent violent behaviour (Haynie, Silverm & Teasdale, 2006; Knoester & Haynie, 2005; Sampson, Morenoff, & Raudenbush, 2005). Additionally, other works using this sample reported a positive association between the socioeconomic disadvantage within the neighbourhood and the development of depressive symptoms in adolescence (e.g., Wickrama, Merten, & Elder, 2005).

The links between neighbourhood low SES and a wide range of problem behaviours was also supported by non-experimental studies conducted with older adolescents, although the results are less consistent. While some studies reported an association between residing in low SES neighbourhoods and older adolescents' involvement in crime and delinquency (Chung & Steinberg, 2006; Sampson & Groves, 1989; Veysey & Messner, 1999), the evidence about drug use is mixed: in a study with high-school students, for example, a high neighbourhood unemployment rate (and indicator of low SES) led to an increase in the likelihood of using drugs, but another indicator of socioeconomic disadvantage (poverty rate), was negatively associated with the same outcome (Hoffman, 2002).

Coherent with the same literature on academic achievement, experimental studies supported the link between low neighbourhood SES and adolescent emotional and behavioural problems; results also tend to vary by gender in experimental findings.

In a study conducted within the MTO program evaluation, for example, girls who relocated to less disadvantaged neighbourhoods reported lower levels of internalizing (psychological distress, anxiety) and externalizing problems (substance use and delinquency), compared to adolescent girls who stayed in highly disadvantaged neighbourhoods. However, the positive effects of leaving an area with a low socioeconomic status to move into a more advantaged neighbourhood were not found among boys (Kling, Liebman, & Katz, 2007). Instead, boys experienced some negative consequences, similarly to findings in a quasi-experimental study evaluating a desegregation program, in which older adolescents who moved to less disadvantaged neighbourhoods reported more behavioural problems and drug use than their peers who stayed in poor neighbourhoods (Fauth et al., 2007). According to these results, the negative effects of moving on youth's social networks may be stronger for males and for older adolescents.

The association between neighbourhood socioeconomic disadvantage and risk behaviours also concerns adolescent sexual activity and attitudes. In general, low neighbourhood SES has shown an



adverse association with several risk behaviours related to adolescents' sexual life, such as early sexual initiation, high number of partners and not using contraception (see for example, Browning, Burrington, Leventhal, & Brooks-Gunn, 2008; Dupere, Lacourse, Willms, Leventhal, & Tremblay, 2008).

Although, in general, studies examining the effects of neighbourhood deprivation on adolescents' emotional and behavioural problems supported this association, it's important to note that there are also studies in which neighbourhood structural indicators showed no association with adolescents' outcomes, especially when they are conducted outside the US (Fagg, Curtis, Stansfeld, & Congdon, 2006; Gunther, Drukker, Feron, & van Os, 2007; Snedker, Herting, & Walton, 2009).

Regarding neighbourhood ethnic composition, another measure of structural advantage-disadvantage, there is some evidence about the negative effects that a high ethnic diversity has on the development of emotional and behavioural problems in adolescence. However, the results varied based on whether ethnic heterogeneity or the proportion of a specific ethnic group in a neighbourhood was measured, the ethnicity of the study participants, the outcomes under study and the neighbourhood SES level.

In neighbourhoods with a high ethnic heterogeneity adolescents reported more frequent criminal activity (Sampson & Groves, 1989; Veysey & Messner, 1999), while residing in a neighbourhood with a few African Americans was associated with an increased likelihood of smoking cigarettes at an earlier age (Reardon, Brennan, & Buka, 2002). Moreover, the study of Aneshensel and Sucoff (1996) showed that the influence of ethnic diversity interacts with the neighbourhood SES: among adolescents in low SES neighbourhoods with a high proportion of African Americans, the prevalence of conduct disorders was higher, compared to low SES, Latino neighbourhoods. Instead, defiant disorders were more frequent in neighbourhoods characterized by middle socioeconomic status and with a high concentration of Latinos and European Americans, with respect to neighbourhoods with a low SES with a high proportion of African Americans.

In the literature, studies examining the effects of residential instability on emotional and behavioural problems are rare, but they support the role of instability as a risk factor in adolescence. In neighbourhoods where people tend to change residence more frequently, in fact, adolescents were more at risk of being involved in delinquent and criminal behaviours (Sampson & Groves, 1989), while residential stability was negatively associated with risk-taking and aggressive behaviours (Kowalesky-Jones, 2000).

A number of studies have also supported the link between different social organization features within the neighbourhood (physical and social disorders, presence of institutional resources

and social connectedness among residents) and adolescent emotional and behavioural problems (Leventhal et al., 2009).

Neighbourhood physical threats and social incivilities, in particular, are thought to be associated with adolescents' socioemotional development. Empirical evidence supported this association, showing that being exposed to high levels of violence in the neighbourhood increases the likelihood of developing internalizing and externalizing problems and even psychiatric symptoms (Cooley-Quille, Boyd, Frantz, & Walsh, 2001; Gorman-Smith, Henry, & Tolan, 2004; Meyers & Miller, 2004; Pettit, Bates, Dodge, & Meece, 1999). Another neighbourhood feature which can be critical for adolescents' involvement in risk-taking behaviours is the access to harmful and illegal substances in the local community, such as alcohol, cigarettes and cocaine. In several studies, adolescents' perceived availability of drugs in their neighbourhood was positively associated with substance use, violent behaviours and gang affiliation (e.g., Chung, Hill, Hawkins, Gilchrist, & Nagin, 2002; Lambert, Brown, Phillips, & Ialongo, 2004).

The presence of institutional resources in the neighbourhood was also examined as a determinant of adolescents' emotional and behavioural problems. First of all, the low quality of the school can influence the socially accepted norms inside the school context in a negative way, thus favouring adolescents' decision of engaging in risk behaviours (Eitle & McNulty Eitle, 2004; Teitler & Weiss, 2000). Furthermore, the availability and quality of medical and social services may have an influence on adolescent mental and physical health (Leventhal et al., 2009), although the evidence about the effects of these resources is scant and not so consistent. For example, in several studies the availability of family planning clinics within the neighbourhood showed no association with adolescents' sexual activity (e.g., Hughes, Furtenberg, & Teitler, 1995), while other studies supported the association between clinics availability and contraceptive use among adolescent girls (e.g., Averett, Rees, & Argis, 2002). Finally, the presence and the quality of social and recreational programs is a critical neighbourhood feature that can impact adolescents' behavioural and emotional outcomes. By encouraging youths to participate in organized activities, these institutional resources represent a protective factor against risk behaviours, such as substance use, especially in highly disadvantaged neighbourhoods (Xue, Zimmerman, & Howard Caldwell, 2007). In any case, we have to take into account that the availability of organizations is not always predictive of participation, and that involvement in local organizations might also have negative consequences on adolescence adjustment (Fauth, Roth, & Brooks-Gunn, 2007).

The more recent neighbourhood characteristic that is receiving increasing support as a determinant of adolescents' emotional and behavioural outcomes is the level of social connectedness among residents within the local community. When there are cohesive and

supportive relationships among people living in a neighbourhood, adolescents are less likely to engage in problem behaviours such as crime and delinquency, compared to neighbourhoods with lower levels of social cohesion (Leventhal et al., 2009). In a number of studies, high levels of neighbourhood cohesion and social control (collective efficacy) were negatively linked to various adolescent externalizing (affiliation with deviant peers, delinquency, violence, risky sexual behaviours) and internalizing (psychological distress and depressive symptoms) problems (Browning et al., 2008; Chung & Steinberg, 2006; Molnar, Miller, Azrael, & Buka, 2004; Dorsey & Forehand, 2003; Nash & Bowen, 1999; Sampson et al., 2005; Sampson et al., 1997). The work of Cantillon (2006), in particular, showed the importance of social ties and emotional connection among neighbours in promoting informal social control, thus reducing the neighbourhood rates of delinquency; the study displayed one of the processes through which neighbourhoods cultivate the capacity to realize the common values of residents, protecting the community from the proliferation of socially unacceptable behaviours. The lack of formal and informal institutions that are able to supervise and support adolescent behaviours, on the other hand, seems to increase the likelihood of being engaged in risk behaviours and experiencing emotional problems, although other evidence supported no association between neighbourhood social connectedness and adolescents' problem behaviours (Cook et al., 2002).

Neighbourhood social connectedness also represents a critical protective factor against the insurgence of negative feelings, such as loneliness, during adolescence (Chipuer, 2001; Pretty et al., 1994; Prezza & Pacilli, 2007). In these studies, in fact, youths' connection to their neighbourhoods influenced their experiences of loneliness: higher levels of participation in neighbourhood activities, friendships, and safety, were associated with lower levels of loneliness experienced within the neighbourhood, probably because of the increased opportunities to develop friendships in the local community.

In general, studies examining neighbourhood effects on adolescent behavioural and emotional outcomes showed how structural and social features of the local community influence adolescents' development. In neighbourhoods with a high level of structural disadvantage, adolescents are more frequently involved in risk behaviours, and more likely to develop emotional problems (although findings tend to vary by gender, and a general pattern for boys and girls is difficult to detect). Moreover, recent studies underlined the importance of social organizational features, such as the presence of physical and social disorder, institutional resources, and social relationships among residents, in influencing adolescents' emotional and behavioural problems. The studies pointed out that, while a lack of these social resources represents a risk factor for engaging in risk behaviours

and experiencing psychological problems, neighbourhoods with low levels of disorder, good-quality institutional resources and strong ties among residents represent protective factors.

### **2.5. Neighbourhood effects on adolescent psychological well-being**

In general, studies of adolescent development are dominated by exploring, measuring, and predicting problem behaviours and psychological distress (Scales, Benson, Leffert, & Blyth, 2000). Although theoretically researchers recognize that healthy adolescence means more than avoiding behavioural and psychological problems, empirically the positive developmental outcomes, as contrasted with the study of risk behaviours, have been explored to a lesser extent. In general, the positive youth development framework defines healthy adolescence in terms of developmental goals that young people should achieve in a variety of domains (school success, leadership, helping others, maintenance of physical health, delay of gratification, valuing diversity, and overcoming adversity), incorporating not only the absence of problem behaviours or pathologies, but also indicators of positive outcomes (see chapter 4; Benson, Leffert, Scales, & Blyth, 1998; Hamburg, 1989).

In the field of developmental psychology it has been difficult to reach a scientific consensus about what constitutes “thriving” during adolescence, perhaps due to the fact that positive outcomes are related to a greater variety of social norms and personal values than the definition of pathology is (Scales et al., 2000). Specifically, in neighbourhood research, this tendency has been amplified by the origins of these studies, initially conducted to understand and deal with the negative consequences of living in highly disadvantaged areas.

The lack of agreement on the definition of adolescent well-being (Pollard & Lee, 2000) and the relative novelty of a wellness promotive perspective in neighbourhood studies, led to an increasing number of studies employing multiple measures of psychosocial well-being, that makes it difficult to synthesize the existing evidence and draw some conclusions about the role of neighbourhood context in promoting adolescent well-being. The difficulties of defining and measuring positive outcomes during adolescence align with the already discussed methodological constraints intrinsic in neighbourhood studies. These are the reasons why no systematic reviews have been conducted to date examining the association between neighbourhood characteristics and adolescent psychosocial well-being (in terms of positive psychological outcomes).

Nevertheless, increasing evidence has demonstrated that in advantaged neighbourhoods adolescents report higher levels of subjective well-being. In order to synthesize the main research results of the studies that in the last decade have examined the wellness promotive role of neighbourhood characteristics, we focused on studies that define adolescents’ well-being in terms of

positive feelings about themselves or their lives, such as self-concept, self esteem and subjective quality of life.

Studies examining the association between neighbourhood structural characteristics and adolescent subjective well-being (employing positive psychological outcomes) are rare, and the results are not consistent and difficult to interpret. The work of Chen and Paterson (2006), for example, showed that neighbourhood SES was not associated with positive psychological variables (optimism, self-esteem, perceived control), which were uniquely influenced by the subjective perception of family socioeconomic status. Similarly, Quane & Rankin (2006) found no direct association between neighbourhood structural characteristics (SES, residential instability) and youth self-concept; however, the neighbourhood socio-economic disadvantage was slightly associated with adolescents' participation in structured activities within the neighbourhood, which in turn was associated with a positive self-concept.

In the same study (Quane & Rankin, 2006) another neighbourhood feature was found to promote youth psychological well-being: the presence of local organizations for adolescents (institutional resources). The availability of youth organizations in the local community was indirectly associated to adolescent self-concept. Adolescent participation rate, in fact, was higher in neighbourhoods where many youth organizations were available, and participation was directly associated with the development of a positive self-concept. Additionally, the effects of neighbourhood institutional resources were higher in areas with a lower socioeconomic status, underlining the complex interaction between structural and social characteristics. A study on African-American adolescents supported this evidence (Taylor, 2000), showing that the more that mothers reported high levels of social resources in their neighbourhood, the higher adolescents' self-esteem was, and the more accepting they were of their adolescents (which, in turn, was positively associated with self-esteem).

Neighbourhood social and physical disorder was also found to be associated with adolescent psychological well-being (Meyers & Miller, 2004), measured via parents' perception of their children adjustment in different life domains (e.g., feelings about themselves, prospects for the future). In this study, direct effects of neighbourhood physical and social incivilities were examined, as well as indirect and moderation effects. Neighbourhood problems were directly associated with adolescent psychological adjustment: adolescents residing in neighbourhoods with lower levels of physical and social disorder showed higher levels of psychological well-being. At the same time, neighbourhood effect was partially mediated by family context, with physical and social disorder influencing the quality of parenting and, in turn, adolescent adjustment. Neighbourhood problems

also showed a moderation effect in relation to more proximal contexts, with a higher level of neighbourhood risk amplifying family and peers' influences on adolescent adjustment.

Regarding the neighbourhood social connectedness, there is some evidence about the positive influence that cohesive relationships among residents within a neighbourhood have on adolescents' psychological well-being. In a longitudinal study examining the influence of multiple contexts (family, peers, school, neighbourhood) on early adolescent well-being, Cook et al. (2002) found that neighbourhood social connectedness and institutional resources (measured with an index including both neighbourhood features) promoted successful development, as measured by a composite index including, for example, positive self and engagement in conventional activities. However, none of the single contexts' effects were of a large magnitude, underlining that contexts are important in determining how young people develop, but they do so cumulatively more than singly. Similarly, higher levels of neighbourhood collective efficacy were directly associated with adolescents' positive self-concept in the work of Quane & Rankin (2006), although the effect was rather modest. It's also important to underline that in this study, the capacity of the local community to work on behalf of the common good (collective efficacy), promoted the adolescents' affiliation with prosocial peers, an aspect that can also help to instil a sense of social integration among youth, thus promoting psychological well-being.

The work of Chipuer et al. (2002) underlined the importance of neighbourhood social resources for the subjective quality of life during adolescence: adolescents who perceived higher levels of neighbourhood cohesion also scored higher in most of the domains included in a composite index of quality of life (assessing seven different domains of well-being: health, productivity, intimacy, safety, community, and emotional well being), although the direct effects of these community variables decreased from early to middle adolescence. A recent study (Cicognani, Albanesi, & Zani, 2008) partly confirmed these results, although the association between social organizational features of the neighbourhood (social connectedness, institutional resources and physical composition) and adolescents' subjective well-being was fully mediated by more proximal contexts (family and peers' support).

This brief overview of the studies analyzing the role of neighbourhood context in promoting psychological well-being during adolescence highlights the difficulty of drawing strong conclusions about neighbourhood effects. In addition to the use of multiple measures of psychological well-being (a limitation that we partly overcame by selecting a specific category of psychological outcomes), the evidence of this line of research derives almost exclusively from non-experimental, cross-sectional studies, which explore the role of neighbourhood often without specific theoretical foundations.

Despite these limitations, the existing literature supports the role of neighbourhood context, especially regarding social organizational features, in promoting psychological well-being in adolescence. Cohesive relationships among residents, as well as the availability of institutional resources within the neighbourhood, seem important aspects for the development of positive feelings about the self and satisfaction with life during adolescence, although their role may change with age (for example, from early to late adolescence) and depending on the characteristic of other critical contexts (such as family, peers and school).

## **2.6. Neighbourhood characteristics and adolescent civic engagement**

In the recent line of research analyzing the wellness promotive effects of neighbourhood context on adolescents' development, there is an increased interest in understanding the association between neighbourhood structural and social features and youth civic engagement. Broadly defined, civic engagement includes attitudes, behaviours, knowledge, and competencies that benefit society and derive from the interest in improving the common good through collaboration with other community members (see chapter 4).

The interest in examining how neighbourhood characteristics contribute to civic development in adolescence is part of the recent tendency to conceptualize neighbourhood context as a resource for positive development. Strongly related to the research on adolescents' subjective well-being, this line of research goes farther, focusing on the contribution of neighbourhood features in fostering adolescents' competencies.

Although neighbourhood features have been studied as resources for the development of different social competencies, during the last decade particular attention has been paid to analyzing neighbourhood context as a predictor of adolescent civic engagement. This choice was motivated by theoretical reasons and empirical findings.

First of all, there is a strong theoretical link between constructs employed to define neighbourhood social connectedness (such as social cohesion, neighbourhood support and collective efficacy) and the definition of civic engagement. As noted in the previous chapter, regardless of the construct employed, neighbourhood social connectedness refers to the quantity and quality of social interactions among residents, and the degree to which their relationships are characterized by the willingness to help each other and collaborate to achieve common goals. Since civic engagement is based on the interest in improving the common good collaborating with other community members, the social processes occurring within the neighbourhood may be a microcosm of public life, in which adolescents have opportunities to exercise rights and assume responsibilities as members of the local community. Furthermore, two recent theoretical shifts led to the convergence of the neighbourhood studies and the civic engagement literature: in the field of

neighbourhood studies, the increasing interest in understanding the role of neighbourhood as a resource for the development of competencies during adolescence; in the civic engagement literature, the raising attention to the contextual correlates of youth civic engagement. These theoretical advances, along with the evidence deriving from earlier studies in neighbourhood research, led a number of scholars to focus on the role of neighbourhood context in the promotion of civic attitudes, skills and behaviours. Although the existing evidence on this topic is still limited, the studies conducted during the last decade found consistent results, supporting the importance of neighbourhood characteristics in socializing adolescents to civic values.

Studies examining the association between neighbourhood context and adolescents' civic engagement focused mostly on the social organization of the local community, analyzing, in particular, the levels of social connectedness within the neighbourhood. However, there is also some evidence supporting the influence of neighbourhood structural characteristics on civic development in adolescence.

Neighbourhoods with a high socioeconomic status, in fact, appear to favour the development of civic knowledge and political tolerance, compared to low-SES neighbourhoods, where adolescents lag behind their peers residing in more advantaged areas in civic competencies, attitudes and behaviours (Atkins & Hart, 2002, 2003; Hart, Atkins, Markey, & Youniss, 2004; Hart, Atkins, & Youniss, 2005). As we noted previously, highly disadvantaged neighbourhoods generally have fewer institutional resources available, so that adolescents may have fewer opportunities to be involved in local organizations, such as voluntary community service, that is an important experience for civic development.

As shown in the work of Wilkenfeld (2009), neighbourhood structural disadvantage influences adolescents' civic engagement in interaction with other neighbourhood features and more proximal contexts; in highly disadvantaged areas, in fact, when civic learning opportunities in the local community or in the school context are enhanced, adolescents' experience more benefits compared to youths residing in more advantaged neighbourhoods (see also Quane & Rankin, 2006).

Another structural aspect that has been examined for its association to adolescents' civic engagement is related to the age distribution of the residents within the neighbourhood. In particular, residing in a community where a large proportion of the population is composed by youth (a so-called "child saturated" community) is thought to negatively impact on the acquisition of civic attitudes and behaviours. In general, since adults have more civic experience and knowledge than adolescents do, in child-saturated neighbourhoods there are fewer people that can transmit civic values to youth through informal contacts; as a consequence, in these neighbourhoods adolescents have lower levels of civic engagement (Hart et al., 2004; Hart et al., 2005).



Regarding the neighbourhood social organization, an aspect that is receiving increasing attention is represented by the social connectedness among residents in the local community. A number of studies supported the statement that the social processes occurring within the neighbourhood may be a microcosm of the larger society, where adolescents learn how to contribute to the well-being of their local communities.

Higher levels of collective efficacy, social capital and trust within the neighbourhood, appear to be associated with youth civic development. When adolescents perceive to be living in a community to which they belong, where people look after each other and are willing to collaborate for the common good, they also report higher levels of commitment to civic participation (Flanagan, Cumsille, Gill, & Gallay, 2007; Kahne & Sporte, 2008).

A specific aspect of the neighbourhood social connectedness has shown a positive association with adolescents' civic engagement: the presence of adults who look after children and adolescents, to which youth can turn when they need different forms of support or advices. Thus, cohesive relationships between adolescents and adults in the local community, and adults' willingness to support and monitor youths' behaviour in accordance with shared norms and values, can nurture adolescents' civic responsibility and give them the resources they need to participate in the life of the local community (Flanagan et al., 2007).

Furthermore, adults in the community can represent role models from which adolescents learn civic values and develop a sense of civic commitment, when they come in contact with examples of neighbours dealing with community problems together, supporting each other and being civically engaged (Kahne & Sporte, 2008).

The association between neighbourhood social connectedness and adolescents' civic engagement has also been confirmed in studies measuring neighbourhood characteristics through parental perception. In the work of Kegler et al. (2005), higher levels of parents' psychological sense of community were associated with increased community involvement among adolescents. It may be that in neighbourhoods where residents have a greater sense of community, social interaction among both adult and youth residents are more frequent and higher quality, favouring the transmission of values from adults to adolescents.

Other studies investigated the role of neighbourhood characteristics such as correlates of youth civic development within a broader ecological perspective, showing the importance of taking into account multiple social systems as predictors of civic engagement. In a recent study with older adolescents, stronger connections with people in the neighbourhood, as well as cohesive relationships at school, with peers and with parents, predicted greater likelihood of voting and being involved in voluntary activities (Duke et al., 2009). These results confirmed what was found by Da

Silva et al. (2004), whose study underlined the role of neighbourhood, peers and family contexts, in promoting higher levels of civic responsibility (Da Silva et al., 2004).

To summarize, although the line of research analyzing the association between neighbourhood context and adolescent civic engagement is relatively recent, and the number of studies on the topic is not sufficient to draw strong conclusions, there is enough evidence to suggest that neighbourhood processes have a critical role in the socialization of youth to civic attitudes and behaviours. In particular, high quality relationships among people in the neighbourhood, especially between adults and youth, and a diffuse willingness to support each other and collaborate, seem to promote adolescents' commitment to civic participation. However, more evidence is needed in order to confirm the results obtained by the first studies, and to analyse in greater depth the mechanisms through which neighbourhood characteristics can impact adolescents' civic development.

## **2.7. Summary and conclusions**

In the chapter, the main research findings in the study of neighbourhood influence on adolescents' development were illustrated.

As shown in the systematic reviews synthesizing the evidence of the earlier studies on neighbourhood effects (Jencks & Mayer, 1990; Leventhal & Brooks-Gunn, 2000, 2004; Leventhal et al., 2009), high levels of structural disadvantage in the local community are associated with worse educational outcomes in adolescence. Moreover, in neighbourhoods characterized by low levels of socioeconomic status adolescents are more frequently involved in risk behaviours, and more likely to develop emotional problems. Considered within the general field of neighbourhood research, studies focusing on these associations have obtained the most consistent results in the literature; although the effects found were generally modest, and a few examples of studies finding opposite results do exist, the negative effects of structural disadvantage on these adolescents' outcomes are widely recognized. The acknowledgement of this association has been possible because of the proliferation of studies investigating neighbourhood influence on the same adolescents' outcomes (academic achievement, emotional and behavioural problems), especially in the last three decades. These studies can be included in the theoretical perspective that examines neighbourhood features representing *risk factors* for adolescents' development, that is, aspects of the local community that increase the likelihood of experiencing some problems in different developmental domains.

More recent studies pointed out that not all disadvantaged neighbourhoods are alike in terms of social processes and general well-being of the residents; on the contrary, aspects such as social connectedness and institutional resources vary across disadvantaged neighbourhoods, and can

protect against the negative consequences of neighbourhood poverty or residential instability (Bursik & Grasmick, 1993). Neighbourhood social resources, according to this perspective, started to be investigated as *protective factors*, able to contrast the negative consequences associated with structural disadvantage and decreasing the likelihood of experiencing academic, emotional and behavioural problems.

The more recent shift in neighbourhood studies has been to conceptualize neighbourhood resources not only in terms of factors that can protect from negative developmental trajectories, but also as *promotive factors* that can foster positive development during adolescence (both in terms of subjective well-being and acquisition of competencies). Although studies based on this assumption are still limited, the existing evidence suggests that cohesive relationships among residents, as well as the availability of institutional resources within the neighbourhood, can nurture positive feelings about the self and increase satisfaction with life during adolescence.

At the same time, high quality relationships among people in the neighbourhood, and their willingness to support each other, seem to promote the development of social competencies, such as civic engagement. By developing social ties with people in the neighbourhood, and getting involved in local organizations, adolescents can be socialized to civic values, and learn how to contribute to the common good.

These three theoretical perspectives, conceptualizing the neighbourhood as a context of *risk*, *protective* and *promotive* factors, are complementary rather than conflicting. Depending on the outcome of well-being under investigation, and on the characteristics of the local community, to study the neighbourhood in terms of risk or protective factors may be more adequate. For example, in contexts where the concentration of disadvantage is particularly pronounced (a peculiarity of the North-American context), understanding the factors responsible of the high rates of adolescent delinquency may be more urgent, along with the comprehension of the factors that can protect adolescents from experiencing psychological and behavioural problems. In contexts where the structural disadvantage is less concentrated, besides the risk and protective factors, it's critical to conceptualize the neighbourhood as a context with resources for positive development, where adolescents, developing social relationships with peers and adults, start to feel members of a community, in which they can find support and learn social skills. For these reasons, in the Italian context, where there is not a strong concentration of disadvantage, and the measurement of the structural features is problematic due to privacy issues (for which it's not possible, for example, to collect data on the socioeconomic status of the residents) the focus on the neighbourhood social resources is more common (Albanesi, Cicognani, & Zani, 2007; Dallago et al., 2009; Mannarini &

Fedi, 2009; Prezza & Pacilli, 2007; Tartaglia, 2006; Vieno & Santinello, 2006; Vieno, Santinello, & Martini, 2005).

According to the studies presented in the chapter, the existing evidence supports the critical role of the neighbourhood as a context for development during adolescence, in which youth may come into contact with several risks, but also find social resources that can nurture their positive development. Thus, the main issue in the recent neighbourhood research is to understand *how* neighbourhood features can impact adolescents' development, elucidating the mechanisms through which specific characteristics of the local community impact a particular aspect of adolescent well-being (Kohen et al., 2008). The earlier studies were mostly motivated by the urgency of handling the problems associated with the increasing disadvantage of some urban areas, with the implicit assumption that neighbourhood disadvantage was harmful for youth. Scholars were mostly interested in evaluating the association between neighbourhood context and adolescents' outcomes, without a shared theoretical model elucidating mechanisms of influence.

The proliferation of studies that has led to increased evidence about neighbourhood effects has also raised the need to explain the processes responsible for the associations found, and to understand why some studies didn't find any association between neighbourhood characteristics and adolescents' well-being. For these reasons, Jencks & Mayer (1990), in their review of neighbourhood research, identified five theoretical frameworks for linking neighbourhood features with individual behaviour. These general frameworks were subsequently reformulated by Leventhal & Brooks-Gunn (2000) who synthesized the principal theoretical approaches used in neighbourhood research for examining the pathways through which its effects are transmitted to adolescents, identifying three models: the *institutional resources* model, the *norms and collective efficacy* model, and the *relationship and ties* model (see chapter 3). These models are currently the most used theoretical benchmarks in neighbourhood research, and they are fundamental in guiding current studies on neighbourhood effects. However, they give a general explanation of the link between neighbourhood characteristics and adolescent development, they do not allow us to elucidate which neighbourhood characteristics influence given aspects of adolescent development, and the mechanisms responsible for this association.

From our perspective, the best strategy for theory generation in this field is to integrate the general frameworks developed in neighbourhood studies with developmental theories, chosen based on the outcome of well-being under investigation (similarly to what was done by Ingoldsby & Shaw, 2002, in relation to antisocial behaviour). For this reason, a well-defined focus on specific outcomes of well-being is necessary, in order to accumulate knowledge on neighbourhood features

associated with a given outcome, thus allowing a more precise understanding of the mechanisms of influence.

In particular, the present work fits in with the recent line of research analyzing the association between neighbourhood structural and social features and youth civic engagement. Therefore, in the next two chapters, the main theoretical frameworks developed in neighbourhood research will be presented (chapter 3), along with the principal developmental models identified within the literature on adolescent civic engagement (chapter 4). A theoretical model linking these theoretical perspectives will be elaborated, thus providing an example of the integration between theories about neighbourhood effects and general developmental models.

## CHAPTER 3

### FROM NEIGHBOURHOOD CHARACTERISTICS TO ADOLESCENTS' WELL-BEING: WHICH PATHWAYS?

*“Son mille caselle uguali tra loro, se guardi di fuori ti sembra inumano/  
Ma dentro ai quartieri esiste un volere, unirsi lottare per vivere bene/  
Un popolo immenso che sciama per via/  
Che corre in città dalla periferia, che vive, lavora per vivere a stento, ma può trasformare l'intero universo”*

*- Pierangelo Bertoli -*

#### **3.1. Understanding *how* neighbourhood characteristics influence adolescents' development**

The evidence presented in the previous chapter supports an association between neighbourhood structural and social characteristics and adolescents' development, as measured by a variety of outcomes. The main aim in the current neighbourhood research is to understand the *mechanisms* responsible for this association, elucidating the *pathways* through which specific neighbourhood features can impact certain aspects of adolescent well-being.

As stated before, the lack of a coherent theoretical framework in neighbourhood research, along with the examination of multiple outcomes, and differences in the definition and operationalization of the neighbourhood context, have hindered the integration of empirical findings examining the underlying mechanisms of influence. However, there is increasing evidence indicating that neighbourhood influences are mainly indirect, operating through several ecological levels, such as family, peers, and school contexts. Similarly, various theoretical perspectives and empirical findings support the idea that neighbourhood structure impacts the social organizational features of the local community, which in turn have an effect on adolescents' outcomes. In addition, a common assumption regards the interaction between neighbourhood characteristics and other contexts: neighbourhood effects are thought to alter other contextual influences (e.g. family, peers, school) on adolescent development.

These premises, which are receiving increasing support from recent studies, have been introduced by the theoretical models adopted in the early neighbourhood research, such as the social disorganization theory (Kornhauser, 1978; Shaw & McKay, 1942), and are coherent with general developmental frameworks stressing the influence of multiple social systems on adolescents' development (e.g., the ecological systems theory, Bronfenbrenner, 1979). In the same way, the importance of simultaneously considering the influence of several contexts, analyzing how they

interact in impacting adolescent development, represented the basis of the five models identified by Jencks & Mayer (1990), in which several mechanisms of influence were proposed.

Recently, three theoretical models were developed by Leventhal et al. (2000, 2009), integrating the work of Jencks & Mayer (1990) and the literature on social disorganization theory (Sampson, 1992; Sampson et al., 1997; Shaw & McKay, 1942). These models, which are currently the theoretical basis for most of the neighbourhood studies, describe general pathways through which neighbourhood influences can be transmitted to young people.

In the following sections, the main theoretical frameworks that have guided neighbourhood research are presented, with a particular focus on *institutional resources*, *norms and collective efficacy*, and *relationship and ties* models (Leventhal & Brooks-Gunn, 2000). The pathways of influence proposed will be discussed in terms of their applicability to explaining how neighbourhood resources can promote adolescents' positive development, and in particular, civic engagement.

### **3.2. Neighbourhood research and the Ecological Systems Theory**

Ecological systems theory (Bronfenbrenner, 1979) represents a critical theoretical framework in developmental psychology, and constitutes a shift in how human development is conceptualized and studied. In particular, the ecological model emphasizes the impact of social contexts on human development and underlines the need to examine multiple systems that affect children and adolescents, in order to understand how these contexts interact in facilitating or hindering developmental outcomes.

With the acceptance of ecological models, developmental research has gradually changed in two important respects. First, there was an expansion in the number of contexts investigated in this field, as compared to the psychodynamic and behaviourist approaches that dominated the first decades of the twentieth century. Despite being based on divergent conceptualizations of the processes leading to healthy (or unhealthy) development, the two approaches converged in stressing the role of family context in children and adolescents' lives. In the last few decades, on the other hand, developmental psychologists started to address an increasing number of social contexts. Elaborating the *ecology of human development*, Bronfenbrenner (1977) pointed out the influence of a myriad of systems, groups and networks on children and adolescents' development, thus giving prominence to contexts such as the school, the local community, overarching cultural belief systems, and the interconnection among these systems. The developmental field, therefore, experienced what some scholars have called a "pluralisation of contexts" (Arnett & Larson, 2005).

Despite an increasing variety in the social systems examined, another critical change occurred in the field regarding the shift from a one-way, top-down concept of the contextual processes

influencing children and adolescents' development, to a conception acknowledging the contributions that youth can bring into their contexts. Researchers now recognize the reciprocal association between individuals and social systems, examining how children and adolescents bring feelings, ideas and competencies to their contexts; the new perspective, then, sees social systems as being co-constructed. The ecology of human development can thus be defined as “the scientific study of the progressive, mutual accommodation, throughout the life span, between a growing human organism and the changing immediate environments in which it lives, as this process is affected by relations obtaining within and between these immediate settings, as well as the larger social contexts, both formal and informal, in which the settings are embedded” (Bronfenbrenner, 1977, p. 514).

In his ecological model, one of the most influential contextual theories of development, Urie Bronfenbrenner (1979) depicts the multiple interacting systems influencing development throughout the lifespan. According to the ecological systems theory, individuals learn and develop as a result of multiple interacting influences over time, ranging from micro- to macro-level factors (Bronfenbrenner, 2005). Indeed, besides the interaction between the individuals and their systems the contexts are also interdependent with each other. Thus, the impact on development derives from the direct influence of each system, together with the indirect effects of distal systems operating through more proximal systems. In Bronfenbrenner's conceptualization, the ecological environment is conceived as a nested arrangement of structures, each contained within the next: the microsystem, the mesosystem, the exosystem and the macrosystem.

The system that is nearest to the adolescent is the microsystem, which is represented by individuals and institutions directly interacting with youth in interpersonal relationships and regular activities (e.g. family, peers, school). The features included in the microsystem, due to their proximity to the adolescent, have a direct effect on development, although the influence of each context changes over time; indeed, the relevance of the different components of the microsystem depends on the developmental stage of the individual.

The mesosystem embraces the interrelations among major contexts of the person's life at a particular point in time; the interactions between multiple systems are thought to have an additional influence on development. For example, in an early adolescent's life, the mesosystem typically includes interactions among family, school and peer groups, which can provide additional opportunities for positive development when they are based on a similar set of norms, or represent an obstacle when conflicts exist between microsystems.

The exosystem is an extension of the mesosystem, which comprises the formal and informal settings in which the individual is not directly included, encompassing the immediate contexts in



which young people find themselves. Furthermore, the exosystem is composed of the interactions between individuals and settings, in which only one component of the relationship comes from the adolescent's microsystem. Thus, the effects of the components and processes of the exosystem are mostly indirect (Bronfenbrenner, 1989). Among the exosystemic structures we can find the world of work, the neighbourhood of residence, community groups, the mass media, and the public policies affecting youth through their effects on schools and families. Other frequently studied exosystems are the connections between young people's parents and their workplace, and the interactions between the school and the neighbourhood.

The most distal context of influence on adolescents' development is the macrosystem, that is, the overarching institutional structures of the culture of which micro-, meso-, and exosystems are concrete manifestations. Economic, social, educational, and political systems are examples of these settings, because, although they do not represent specific contexts impacting individuals' lives, they are prototypes that shape the structures and activities occurring at a concrete level. Most macrosystems are implicit, transmitted to society's members as ideologies that are manifested in the practices of the everyday life.

The ecological systems theory currently represents the theoretical benchmark for studies examining the impact of a variety of social systems on adolescent development. Neighbourhood research, in particular, is grounded in the theoretical assumptions of the ecological model, supporting the statement that neighbourhood effects are largely indirect, operating through more proximal contexts or in interaction with other settings (mediation and moderation effects). Several studies examined the effects of the neighbourhood characteristics on more proximal contexts (e.g., Cantillon, 2006; Chung & Steinberg, 2006; Dorsey & Forehand, 2003; Meyers & Miller, 2004; Quane & Rankin, 2006; Vieno, Nation, Perkins, Pastore, & Santinello, 2010), in order to understand its indirect impact on adolescent well-being. In the recent literature the analysis of the interaction between contexts is also becoming more and more common, to evaluate how the neighbourhood influence can vary in relation to the characteristics of the other contexts (and vice-versa) (e.g., Coley, Morris, & Hernandez, 2004; Cook et al., 2002; Fauth et al., 2007; Meyers & Miller, 2004). As we point out later in the chapter, although these studies are based on the same general assumptions, they generally develop more specific models based on the outcome under investigation, which also guides the choice of the other contexts to be examined (e.g., family, peers) and the mechanisms of influence hypothesized. Despite the wide variety of outcomes studied and the multiple associations between contexts investigated, which have made it difficult to integrate evidence deriving from different studies, some similarities exist across models, as we point out in the following sections.

### **3.3. Neighbourhood research and the Social Disorganization Theory**

One of the earliest and most influential theories developed to explain the processes through which neighbourhood features influence adolescents' well-being is the social disorganization theory (Park, Burgess, & McKenzie, 1967). The main aim of this social ecological theory was to elucidate the mechanisms of influence responsible for the association between neighbourhood structural characteristics and delinquency in adolescence, and originated from the ecological theory of urban dynamics of the University of Chicago (Park et al., 1967). The old school of Chicago focused on the study of the physical expansion of the city, in order to understand the subsequent changes in the social life of the residents.

The work of Shaw and McKay (1942) extended this theoretical approach in order to explain why in certain Chicago neighbourhoods there was a higher proportion of delinquency as compared to other neighbourhoods of the city. The scholars' research highlighted an association between neighbourhood residence and delinquency; this association become weaker as the distance from the city centre increased. So, the higher rates of crime and delinquency in some neighbourhoods were not explained with individual-level theories, by blaming the individuals residing in these areas, but by looking at the neighbourhood-level structural features. Aspects such as poverty and residential instability in the neighbourhood, according to this perspective, were thought to negatively impact neighbourhood social organization (in particular, the social connectedness among residents), thus resulting in increased criminal and delinquent behaviours in the local community.

Social disorganization can be defined as the inability of residents within a neighbourhood to collaborate for the common good, favouring the respect of shared norms and values, and solving together the problems of the local community (Kornhauser, 1978). When levels of social disorganization are particularly high, the neighbourhood residents are isolated from one another, and tend to be disconnected from the formal and informal institutions of the local community. According to the social disorganization theory, there are some structural features that hinder the creation of social networks within the community: in neighbourhoods characterized by low levels of socioeconomic status, with high levels of residential instability and the presence of a heterogeneous population (e.g., in terms of ethnic composition), the establishment of social networks among residents, critical to promoting shared norms and creating a supportive context for adolescent development, is extremely difficult. Furthermore, neighbourhood structural disadvantage generally leads to low-quality formal institutions in the neighbourhood (e.g., social and health services, schools), which serve to bind people within the local community together and supply services to residents. Thus, structural disadvantage further hinders the creation of social ties in the neighbourhood through its negative impact on institutional resources, which are fundamental for the

establishment of social networks in the local community. Social disorganization theory can thus be defined as a systemic model, incorporating both formal institutions and informal ties in the pathways through which neighbourhood structure influences adolescents' development (Kasarda & Janowitz, 1974).

In summary, social disorganization theory posits that the level of neighbourhood social organization mediates the association between neighbourhood structural features and delinquent behaviours. According to this theoretical model, there is a continuum in which social organization and social disorganization are on opposite extremes, which describes the capacity of the local community to monitor residents' behaviour, controlling and reducing inappropriate or illegal acts (Cantillon et al., 2003). As Cantillon et al. (2003) underlined, this conceptualization of social disorganization/organization as a theoretical framework is fundamental, considered the misuse of the theory in past studies. For example, social disorganization has been used as an indicator of structural disadvantage, mediating processes, and also as a descriptor of its outcomes (e.g., criminal and delinquent behaviours), thus causing confusion in the field of neighbourhood studies. Social disorganization theory, on the other hand, represents a theoretical framework explaining the link between neighbourhood structural disadvantage and youth outcomes (especially behavioural problems such as delinquency), through the mediation effects of institutional resources and social connectedness within the local community.

In its early conceptualization, the main limitation of the social disorganization model was the lack of empirical support for the pathways of influence proposed in the theory. In particular, because of the easy access to census data there was a major focus on structural features, while the mediating processes of neighbourhood social organization were assumed without actually measuring mediating variables (Brooks-Gunn et al., 1993; Simons et al., 1996).

Subsequently, several studies found support for the mechanisms of influence proposed in the social disorganization theory, showing that the negative effects of neighbourhood structural disadvantage on youth delinquency and violence are mediated by the social characteristics of the local community (Elliott et al., 1996; Krivo & Peterson, 1996; Sampson et al., 1999). In spite of the increasing evidence supporting the mediating role of neighbourhood social characteristics in this association, the difficulties in defining and measuring neighbourhood organization variables has led to a proliferation of constructs depicting neighbourhood social resources (see chapter 1). The lack of agreement in the definition and operationalization of social organizational features currently represents the main criticism of the theory, and the principal obstacle to the accumulation of evidence and the theoretical development of the model. However, the social disorganization theory

constitutes one of the earliest and most important ecological models of delinquency, and the basis for the following theoretical models developed in neighbourhood research.

#### **3.4. Five theoretical frameworks to understand neighbourhood influence: The work of Jencks and Mayer**

The ecological systems model (Bronfenbrenner, 1979) and social disorganization theory (Park et al., 1967; Shaw & McKay, 1942) provided a wide framework to hypothesize more specific pathways of influence linking neighbourhood characteristics and adolescent outcomes. Based on the theoretical assumptions of these frameworks, Jencks and Meyer (1990), while reviewing the evidence about neighbourhood influence on adolescent outcomes, identified five different models to explain how neighbourhood effects may operate.

In particular, the authors pointed out that, at the time of their review, two principal schools of thought were available about the influence of neighbourhood characteristics on adolescents' development. According to one perspective, more advantaged neighbourhoods are beneficial for youth development, while structural disadvantage has negative consequences on a wide range of outcomes; instead, an opposite perspective supported the idea that advantaged neighbourhoods negatively impact adolescent outcomes, encouraging, for instance, their engagement in risky behaviours.

Regarding the first perspective, the authors underlined three main mechanisms through which, depending on the level of structural advantage/disadvantage, neighbourhood of residence will have respectively a positive or negative effect on youth development. These three pathways of influence are thought to operate through more proximal contexts: peer influences, which are included in the *epidemic* models; adults residing in the local community, comprised in the *collective socialization* models; adults outside the neighbourhood of residence, whose influence is explained in the *institutional* models.

Epidemic models, focusing on the way in which peers impact each other's behaviour, posit that if adolescents grow up in a neighbourhood where a lot of people use drugs, for instance, those young people will have a higher likelihood of using drugs. On the contrary, if adolescents reside in a neighbourhood where the majority of their peers do well at school, he or she will feel pressured to have a strong commitment to school. According to the model, since deviant behaviours are more common in disadvantaged neighbourhoods, adolescents growing up in poor communities will be at higher risk of becoming engaged in risk behaviours (even when comparing youth from families with similar characteristics). The authors underline that scholars supporting the contagious nature of behaviour rarely analyze in depth the mechanisms responsible of this "contagion". Most of them seem to be based on the assumption that each neighbourhood is characterized by a shared set of

norms, which derives from observing others' behaviour. Although this model assumes that youth in the neighbourhood will try to conform to the dominant set of norms, it also postulates that there are individual differences in the susceptibility to neighbourhood effects: among adolescents with different levels of susceptibility, related to individual or contextual factors (e.g., the family environment), the likelihood of being engaged in risk behaviours is higher when youth are exposed to these behaviours in the neighbourhood.

Collective socialization models, rather than focusing on peer influences, aims to explain how non-parental adults in the local community may contribute to adolescents' development. According to these models, adults in the neighbourhood represent role models for youth, so that the presence of affluent people shows the successful results of working hard, in addition to monitoring adolescents' behaviour and intervening to keep them out of trouble.

Similarly, institutional models consider adults' influences on adolescent development, but they examine the role of adults coming from outside the neighbourhood, working in the institutions of the local community (e.g., teachers, police). For example, according to these models, in more advantaged neighbourhoods there are higher-quality schools, which have better teachers compared to schools in disadvantaged communities; as a consequence, adolescents in neighbourhoods with a higher level of structural disadvantage will learn less, due to the lower quality of teaching.

Empirically, it was not easy to choose among these three categories of theoretical models: they all supported the idea that neighbourhood disadvantage negatively affects adolescents' development, while more affluent neighbourhoods are beneficial for youth, but they attributed these associations to different mechanisms operating through more proximal contexts.

On the contrary, *relative deprivation* and *competition* models assume that more advantaged neighbourhoods are detrimental for adolescents' development, encouraging deviant behaviours.

Models centred on the constructs of relative deprivation, in fact, imply that people evaluate themselves by comparing their successes or failure with others'. For instance, adolescents will judge their academic achievement through a comparison between their school performance and that of their classmates. Thus, youth with a low academic achievement will have a more positive evaluation of their school competencies if they attend a school in a low-SES neighbourhood (where, on average, students have worse school outcomes), than if they attend a school in an advantaged neighbourhood. While some students may be stimulated by the competition and react by trying harder, others respond with a reduction of their academic effort, thus increasing the likelihood of quitting school and getting involved in risk behaviours. The theory of relative deprivation, therefore, interprets deviant behaviours as a product of the environment, where people find terms of reference to evaluate their own successes and failures; according to the model, when a consistent

number of individuals cannot reach the goals that society promotes as desirable, they end up creating a deviant subculture in which the behaviours stigmatized in the dominant culture are accepted. The competition models follow a similar logic, underlying how in more advantaged neighbourhoods the competition can be tougher, leading to the same consequences illustrated before.

At the time of the review, the existing evidence was not sufficient to choose among these models; the main aim of the studies conducted until then, in fact, was to understand *how much* individual's behaviour may change in neighbourhoods with different structural characteristics, but the results available were not sufficient to understand *why*.

In general, the models have been able to make advances in terms of the theoretical work on neighbourhood effects, applying the assumptions of the ecological systems theory (Bronfenbrenner, 1979) to this specific research field and expanding the social disorganization theory through the inclusion of other developmental outcomes that may be influenced by the neighbourhood context (e.g., academic outcomes, sexual risky behaviours). However, these models do not explicitly identify how given aspects of the neighbourhood of residence may impact specific adolescents' outcomes, but they suggest which of several mechanisms of influence may be operating.

### **3.5. Recent theoretical developments in neighbourhood research**

During the last decade of the past century, the proliferation of studies examining neighbourhood influences on adolescents' outcomes gave further support to the importance of the local community at this developmental stage. However, the pathways linking neighbourhood characteristics to youth development were not fully understood, so that empirical studies were mostly based on the general assumptions derived from ecological systems theory, social disorganization theory and the theoretical frameworks proposed by Jencks and Mayer (1990).

In particular, social disorganization theory stressed the association between neighbourhood structure and social organizational aspects, whereas Jencks and Mayer's frameworks, consistent with the ecological systems theory, underlined the indirect nature of neighbourhood influences and the strong interconnections between contexts. Integrating these two general assumptions with the literature on economic hardship (Conger, Ge, Elder, Lorenz, & Simons, 1994; McLoyd, 1990), Leventhal and Brooks-Gunn (2000; Leventhal et al., 2009) developed three theoretical models examining in greater depth the processes through which neighbourhood structural characteristics may impact adolescent development: *institutional resources* model, *norms and collective efficacy* model and *relationships and ties* model.

Unlike Jencks and Mayer's theoretical frameworks, the models proposed by the authors are conceptualized as complementary, instead of conflicting: their usefulness mostly depends on the outcome under investigation and the specific developmental stage of youth.

### ***3.5.1. The institutional resources model***

Neighbourhood institutional resources include the availability, quality, variety and affordability of different kind of resources present in the local community, which can impact adolescents' well-being (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009; Neuman & Celano, 2001). These resources represent the principal opportunities to which youth have access in their neighbourhood, in terms of activities, meeting places, and services.

According to the institutional resources model, in neighbourhoods with high levels of structural disadvantage (low SES, high ethnic diversity, high residential instability), the quantity and variety of resources for youth is lower, thus restricting the opportunities to access several types of services and activities. Moreover, the quality of resources pertinent to adolescents is generally worse where the structural disadvantage is more pronounced. Therefore, this theoretical model argues that the neighbourhood structural features transmit their influence on adolescent development by negatively impacting the resources of the local community.

School constitutes one of the main institutional resources present in the neighbourhood that can have an influence on adolescents' lives, so that neighbourhood effects may operate mostly by affecting school context. In neighbourhoods with high levels of structural disadvantage, in fact, it's more likely to find low-quality schools, with a climate that does not favour student's learning and a dominant set of norms unable to protect adolescents against the involvement in risk behaviours (Card & Payne, 2002; Dupere, Leventhal, Crosnoe, & Dion, 2010; Jencks & Mayer, 1990). For instance, a number of studies have examined the association between neighbourhood structural features and the school characteristics in the local community, showing that neighbourhood disadvantage is detrimental for the quality of the schools. The lower quality of the schools, in turn, is negatively associated not only with adolescents' achievement, but also with their likelihood of experiencing behavioural problems. In schools where students, on average, are not strongly committed to the academic mission, there are fewer resources per student, and social norms characterized by the acceptance of deviant behaviours prevail, adolescents have greater reported problems of alcohol, tobacco, and illicit drug use than in other schools (Eitle & McNulty Eitle, 2004; Ennett, Flewelling, Lindrooth, & Norton, 1997; Finn, 2004; Skager & Fisher, 1989).

Another community resource that the structural disadvantage may negatively impact, according to the model, regards the quality, quantity and affordability of health and social services. In particular, this may be a vehicle through which neighbourhood influences are transmitted to an

individual's well-being, especially in terms of mental and physical health. Although empirical studies examining this particular type of institutional resources are rare, there is evidence supporting an association between neighbourhood socioeconomic status and the availability of healthcare and social services. For example, the schools located in neighbourhoods characterized by low SES, less frequently offer health services to students (Billy et al., 2000).

During adolescence, a critical aspect of the local community regards the presence of recreational activities and meeting places. Following the institutional resources model, in highly disadvantaged neighbourhood the presence of sport programs, cultural associations and community centres is reduced (Gardner & Brooks-Gunn, 2009); as a consequence, adolescents residing in the neighbourhood have fewer opportunities to be involved in structured activities or to develop social relationships with people in the local community. Several studies pointed out the beneficial effects of participation in structured activities on adolescent adjustment, protecting them against the involvement in risk behaviours and favouring positive development (Barnes, Hoffman, Welte, Farrell, & Dintcheff, 2007; Dworkin, Larson, & Hansen, 2003; Eccles & Gootman, 2002; Quane & Rankin, 2006; Xue et al., 2007). However, adolescents' participation in structured activities, such as community-based organizations, can also be detrimental for young people when they reside in neighbourhoods with high rates of crime and violence (perhaps because of a greater exposure to risk factors; Fauth et al., 2007).

Although participation in recreational activities during adolescence is generally found to promote positive development, especially for young people living in disadvantaged neighbourhoods, it is true that in these communities adolescents tend to have limited access to local organizations. Thus, by influencing the availability and quality of these institutional resources, neighbourhood disadvantage ends up having a negative influence on adolescents' development. Indeed, there is empirical evidence regarding the negative association between low neighbourhood SES and the availability of youth organizations; the paucity of opportunities for involvement, in these neighbourhoods, is often associated with higher levels of problem behaviours among adolescents (Connell, Aber, & Walker, 1995; Furstenberg et al., 1999; Luthar, 2003; Quane & Rankin, 2006).

The last institutional resource that the authors illustrate (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009) in the model is the availability of employment opportunities in the neighbourhood. According to the theoretical framework, in highly disadvantaged neighbourhoods, the presence of a limited number of job opportunities can negatively affect adolescent development, especially in relation to academic achievement and problem behaviours. In the literature examining neighbourhood effects, no studies have specifically analyzed the influence of the employment



opportunities in the local community on youth development; however, the extent of job opportunities, as well as the presence of professionals in the neighbourhood, may influence adolescents' expectations about their professional future. Where there are few available jobs and unemployment is widespread, adolescents' expectations about the future are likely to be related to feelings of hopelessness, with negative consequences on educational attainment and problem behaviours (Bolland, Lian, & Formichella, 2005).

In general, the model identifies potential pathways of influence through which neighbourhood structural features, affecting the institutional resources available in the local community, may impact adolescents' development. Although the model is consistent with the assumptions of the social disorganization theory (Park et al., 1967; Shaw & McKay, 1942), its main limitation derives from the lack of empirical evidence for the model. Moreover, a number of studies showed that the association between availability of resources and residents' use of these resources, a central assumption of the proposed model, is not "automatic"; on the contrary, some studies found no consistent association between the availability of youth organizations and adolescents' participation in these activities (Ferreira et al., 2006). The lack of association between availability and participation may be related to the fact that, when disadvantaged neighbourhoods do not offer opportunities for activities, residents tend to search for resources in other neighbourhoods. Moreover, the connection between what is available and the individual's choice of participating appears to be more complex: the work of Quane and Rankin (2006), for instance, demonstrated that in disadvantaged communities youth are more likely to get involved in local organizations when they have the chance to do so. This could explain why some studies find no differences in youth participation across neighbourhoods with different structural characteristics and underlines the potential benefits of promoting youth organizations in disadvantaged contexts.

Finally, most of the evidence based on the institutional resources model derives from North American studies; the suitability of the model might be different in contexts where the concentration of disadvantage is not so pronounced, and a higher level of structural disadvantage is not directly associated with the opportunities for youth in the local community.

### ***3.5.2. The norms and collective efficacy model***

The norms and collective efficacy model derives from an integration of the social disorganization theory (Park et al., 1967; Shaw & McKay, 1942), the collective socialization framework (Jencks & Mayer, 1990) and the more recent formulations of neighbourhood social connectedness, with a particular focus on the construct of collective efficacy (Sampson et al., 1999; Sampson et al., 1997).

As previously stated, collective efficacy can be defined as the capacity of the community to work on behalf of the common good, promoting socially accepted norms and monitoring the residents' behaviour, ensuring that it respects these social norms. In general, in a neighbourhood with high levels of collective efficacy, residents have the ability to draw resources from the community and mobilize these resources for the common good, collaborating to solve community issues. The presence of shared values and norms deriving from a consensus among residents is fundamental to guiding community members' behaviour, in particular constraining children and adolescents' deviant behaviours.

The norms and collective efficacy framework posits that the levels of collective efficacy within a local community are a function of the neighbourhood structural characteristics, such as socioeconomic status, ethnic diversity and residential instability. Therefore, neighbourhood structural disadvantage is thought to influence the ability of community members to create a shared set of socially accepted norms that promotes the willingness to intervene on behalf of the community. According to the model, in highly disadvantaged neighbourhoods it's difficult to establish social connections characterized by trust and reciprocity, so that residents are unable to monitor others' behaviour in line with social norms. In neighbourhoods with low levels of collective efficacy, then, it's more likely that adolescents are engaged in problem behaviours such as crime and delinquency, due to the lack of a clear indication of what is accepted inside the community, and due to the weakness of the monitoring mechanisms able to constrain adolescents' behaviours. On the contrary, when high levels of collective efficacy allow the establishment of a shared set of norms that indicate what is considered desirable within the neighbourhood, and residents are willing to intervene when these norms are violated, adolescents are less likely to engage in risk behaviours, and are encouraged to display more prosocial behaviours.

Within the norms and collective efficacy framework, besides the mediation effect of the levels of collective efficacy, another pathway of influence is proposed, reflecting the epidemic models illustrated by Jencks and Mayer (1990). According to the model, neighbourhood structural disadvantage not only has a negative effect on the social connectedness among residents, lowering their ability to work on behalf of the community, but is also associated with adolescents' affiliation with deviant peers. Indeed, in disadvantaged neighbourhoods, the exposure to peers engaged in delinquent or unconventional activities is higher, thus increasing the likelihood of having friends involved in these kind of behaviours (Dupere, Lacourse, Willms, Vitaro, & Tremblay, 2007; Ge, Brody, Conger, Simons, & Murry, 2002; Harding, 2007; Haynie et al., 2006). At the same time, the low levels of collective efficacy generally associated with structural disadvantage are unable to constrain adolescents' behaviour, further exacerbating the negative effects of disadvantage. Since

peer group behaviours and norms are central influences during adolescence, the final result of these pathways of influence is an increased level of adolescents' problem behaviours within the local community.

Finally, the third mechanism of influence postulated in the norms and collective efficacy model passes through the presence of physical and social incivilities in the neighbourhood. In communities characterized by concentrated structural disadvantage and low levels of collective efficacy, physical incivilities, social disorder and the availability of harmful and illegal substances are more common (Fauth, 2004; Fauth et al., 2008; Kling et al., 2007). The greater exposure to these threats, in turn, is associated with adolescents' outcomes, being particularly detrimental to their socio-emotional development.

Accumulating empirical evidence supports the pathways of influence proposed in the norms and collective efficacy model, which is currently the strongest theoretical model adopted in neighbourhood research.

In relation to the first mechanism of influence, maintaining that the effects of neighbourhood structural disadvantage are transmitted to adolescents through a negative impact on collective efficacy, a number of studies found a negative association between neighbourhood disadvantage and levels of social connectedness within the community (e.g., social control, collective efficacy, social cohesion). Neighbourhoods with low levels of socioeconomic status, highly heterogeneous in terms of ethnic composition and with a pronounced residential turnover appear to hinder social interactions among people in the neighbourhood, making the creation of social networks within the community difficult. These links have been reported both in studies with adult populations (Kruger, Reischl, & Gee, 2007; Raudenbush & Sampson, 1999; Sampson et al., 1999; Pattillo, 1998; Weden, Carpiano, & Robert, 2008) and in studies with adolescents (Cantillon, 2006; Chung & Steinberg, 2006; Rankin & Quane, 2002; Tolan, Gorman-Smith, & Henry, 2003; Wikrama & Bryant, 2003). Research findings also showed an association between neighbourhood social connectedness and adolescents' adjustment, confirming that the influence of structural disadvantage on youth may be mediated by neighbourhood social connectedness. In particular, in neighbourhoods where social connectedness was weaker, adolescents reported more frequently externalizing (e.g., delinquent and criminal behaviours, affiliation with deviant peers, risky sexual behaviours) and internalizing (mainly depressive symptoms) problems (Browning et al., 2008; Chung & Steinberg, 2006; Molnar et al., 2004; Sampson et al., 2005; Tolan et al., 2003).

The peer group pathway of influence has also received strong empirical support; as argued in the norms and collective efficacy model, residing in a structurally and socially disadvantaged neighbourhood favours the affiliation with deviant peers, because of the increased exposure to

violent youth within the local community (Dupere et al., 2007; Harding, 2007; Haynie et al., 2006). As shown in several studies, deviant peer affiliation is associated with adolescents' engagement in risk behaviours, such as crime and substance use (Chuang, Ennet, Bauman, & Foshee, 2005; Chung & Steinberg, 2006; Haynie et al., 2006; Meyers & Miller, 2004; Sampson & Groves, 1989; Veysey & Messner, 1999).

Finally, there is also some evidence indicating that neighbourhood structural and social disadvantage transmits their influence by impacting the presence of physical and social incivilities in the neighbourhood. High levels of structural disadvantage, in fact, along with the inability of community members to control unacceptable behaviours within the neighbourhood, create the conditions for the proliferation of physical and social incivilities. The evaluation of a housing program in which some families relocated from disadvantaged neighbourhoods to neighbourhoods with a higher socioeconomic status, for instance, found that adolescents who moved were less frequently exposed to episodes of crime and violence (Fauth, Leventhal, & Brooks-Gunn, 2005; Kling et al., 2007). A greater exposure to social disorders, in turn, seems to increase the risk of experiencing internalizing and externalizing problems, and even psychiatric symptoms (Aneshensel & Sucoff, 1996; Cooley-Quille et al., 2001; Gorman-Smith, Henry, & Tolan, 2004; Haynie et al., 2006; Pettit et al., 1999). Furthermore, in disadvantaged communities the access to drugs is generally easier, so that adolescents in these neighbourhoods have greater access to substances such as cigarettes, alcohol and cocaine (Fauth et al., 2005; Freisthler, Lascala, Gruenewald, & Treno, 2005). Adolescents residing in areas where drugs are available and easy to find are at greater risk of using these substances, and they also have a greater likelihood of developing other problem behaviours, such as crime and delinquency (Chung et al., 2002; Lambert et al., 2004).

The norms and collective efficacy model identifies some potential mechanisms responsible for the association between neighbourhood structural characteristics and adolescents' development, through the mediation of neighbourhood social connectedness and peer group affiliation. This framework, developed from the integration of different theoretical models elaborated in neighbourhood studies, has received strong empirical support in the literature, and its main strength is to point out important processes involved in neighbourhood influences. The main limitation of the theoretical and empirical work related to the model lies in its almost exclusive focus on the association between neighbourhood disadvantage and adolescents' emotional and behavioural problems. Indeed, the current conceptualization of the norms and collective efficacy model, while acknowledging that high levels of neighbourhood social connectedness may promote adolescents' prosocial behaviours, such as school achievement and civic participation, does not examine in greater depth the potential pathways of this wellness-promotive pathway.

### ***3.5.3. The relationships and ties model***

The third framework identified by Leventhal et al. (2000, 2009), called relationships and ties, is based on the family stress model (Conger et al., 1994), according to which low family income is associated with adolescents' outcomes; indeed, financial worries can negatively influence parents' well-being, favouring the onset of depressive symptoms and then deteriorating their parenting abilities. In the family stress model, parental support networks and social relationships are thought to moderate the negative effects of financial strain, providing them with the resources to face economic problems, thus softening the detrimental influence of economic hardship on parenting.

The authors (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009) broadened this framework, underlining that neighbourhood disadvantage may impact parental well-being, which in turn is associated with the quality of parenting and adolescents' development. The relationships and ties model, then, argues that parental relationships may be a pathway through which neighbourhood characteristics influence adolescents' development. Neighbourhood structural disadvantage, along with the presence of physical and social incivilities and low levels of social connectedness among residents (e.g., collective efficacy, social cohesion), are thought to influence adolescents' development through their negative impact on parents' well-being.

According to the relationships and ties frameworks, there are different aspects of the family contexts that may be affected by the characteristics of the local community. First of all, neighbourhood residence has shown an association with parents' physical and mental health. In particular, strong evidence exists supporting the link between neighbourhood structural disadvantage (mostly in terms of low SES) and lower levels of physical and mental health (Allison et al., 1999; Diez-Roux, 2001; Fauth et al., 2008; Hill, Ross, & Angel, 2005; Kling et al., 2007). Moreover, neighbourhood structure is associated with aspects of psychological well-being which are critical for parenting competencies, such as parental efficacy (Ceballo & Hurd, 2008; Elder, Eccles, Ardel, & Lord 1995), coping skills and maternal self-esteem (Kowaleski-Jones, 2000). Family stress and conflict was also found to be affected by structural characteristics such as neighbourhood poverty.

All these aspects pertaining to parents' well-being and marital relationships are strictly interconnected and have a negative impact on several parenting behaviours. Parental warmth, harshness and monitoring are all aspects that neighbourhood poverty and disorder can influence, either directly, or through their effect on parents' well-being and marital relationship. In particular, in disadvantaged and dangerous neighbourhoods, adolescents more frequently report receiving harsh parenting (e.g., Fauth et al., 2007), characterized by lower levels of warmth and higher aggression (Klebanov, Brooks-Gunn, & Duncan, 1994; Pinderhughes, Nix, Foster, & Jones, 2001;

Taylor, 2000; Tendulkar, Buka, Dunn, Subramanian, & Koenen, 2010). Although in highly violent and impoverished neighbourhoods parents may use restrictive techniques in order to protect their children against negative community influences (Beyers et al., 2003; Burton & Jarret, 2000; Furstenberg, 1993; Roche et al., 2005), a harsh discipline without adequate levels of parental support and warmth can be detrimental, encouraging adolescents' engagement in problem behaviours (Beyers, Loeber, Wikström, & Stouthamer-Loeber, 2001).

In summary, neighbourhood structural disadvantage seems to operate through its negative effects on parents' well-being, marital relationships and parental competencies; all these aspects of the family context, in fact, negatively impact adolescents' development.

A possible resource that parents can use to counteract the negative consequences of residing in a disadvantaged area is represented by their networks of support. Relationships with family, friends and neighbours may represent a buffer against the negative influence of neighbourhood poverty, danger and disorder, minimizing the detrimental effects of inadequate parenting on youth development (Conger et al., 1994; Ross & Jang, 2000). However, it's possible that the neighbourhood structural features affect the density and the quality of the support networks within the local community. For example, social support may be lowest in low-SES neighbourhood, where their buffer effect would be most important (Leventhal et al., 2009); the existing evidence on the association between neighbourhood structure and the creation of social networks among residents is too scarce to draw strong conclusions.

Regardless of the potential association between structural features and the presence of networks of support within the neighbourhood, a number of studies confirmed the critical role of social connections in the community for parents' well-being and parental competencies. In particular, social networks with people in the neighbourhood of residence may be important for job referral, as well as for providing assistance with children's care (Coleman, 1988; Jones, Forehand, O'Connell, Armistead, & Brody, 2005). The practical and emotional support received within the local community, thus, represents a fundamental resource to deal with the stressors of disadvantage, and can buffer the detrimental effects of neighbourhood poverty and disorder.

The relationships and ties model, underlining the importance of the family context for the transmission of neighbourhood influence, also gives prominence to the levels of social connectedness within the local community (besides the structural disadvantage). Indeed, several studies have tested mediation models in order to evaluate if the levels of social cohesion in the neighbourhood influence adolescents' development by impacting the family environment. Findings showed that higher levels of neighbourhood social connectedness (conceptualized using different theoretical constructs, such as collective efficacy and collective socialization) are associated with a

more frequent use of authoritative parenting strategies; warm and harsh parenting, in turn, was found to protect adolescents from engagement in delinquent behaviours, the affiliation with deviant peers, and the onset of depressive symptoms (Dorsey, & Forehand, 2003; Simons, Simons, Burt, Brody, & Cutrona, 2005; Vieno et al., 2005; Vieno et al., 2010; Wickrama & Bryant, 2003). In neighbourhoods where people are willing to help each other and to collaborate on behalf of the community, in fact, parents may have more practical and emotional resources to care for their children. The opportunity to leave their children with a neighbour, for example, or the simple awareness that there are people in the neighbourhood willing to intervene if adolescents get into trouble, it's a critical support for parents; the support of the local community seems to promote parents' well-being, thus improving their marital relationships and parenting strategies. In summary, both structural and social features of the neighbourhood transmit their influence on adolescents' development by influencing a critical aspect of the family environment: the quality of parenting.

According to the relationships and ties model, another vehicle related to the family context through which neighbourhood characteristics may influence youth well-being is the home environment, an aspect strictly related to the quality of parenting. In particular, Leventhal et al. (2009) identified three aspects of the home environment which can be influenced by neighbourhood context and impact youth development.

First of all, there is evidence supporting a negative association between neighbourhood structural disadvantage and the quality of the home environment, making adolescents at increased risk for injury and illness (Borrell et al., 2002; Soubhi, Raina, & Kohen, 2004). Second, the authors hypothesized that in impoverished neighbourhoods, with high rates of violence and low levels of social connectedness, the family routines may be less structured. The presence of a regularity in mealtimes, time to sleep and doing homework, for instance, is thought to be important for youth social development, so that family routine might transmit the influence of structure and social disadvantage in the local community. However, this pathway has not received empirical support to date, and more research is needed in order to evaluate its suitability (Fauth et al., 2005; Leventhal et al., 2009). The third aspect hypothesized to be a possible vehicle of neighbourhood influence is the exposure to violence within the home environment. Neighbourhood structural disadvantage, in particular in terms of low socioeconomic status, was found to be associated with a higher exposure to violence both in the local community, as well as in the home environment (e.g., Coulton, Korbin, & Su, 1999; Martinez & Richters, 1993). Being exposed to violent behaviours at home, then, can have negative consequences on adolescents' physical and emotional well-being (Kennedy, Bybee, Sullivan, & Greeson, 2010; Wright, 1998).

The relationships and ties model specifies some of the mechanisms through which the characteristics of the neighbourhood of residence may impact the family context, influencing parents' well-being, the quality of parenting strategies and the home environment. Although starting in early adolescence youth experience an increasing autonomy from the family, parents continue to be critical in influencing adolescents' development. Consistently, studies carried out to evaluate the role of the family context in the neighbourhood effects on adolescents' development pointed out that the characteristics of the local community affect parents' well-being. Specifically, structural and social disadvantage is negatively associated with parents' physical and mental health; as a consequence, problems may arise within the marital relationship and the quality of parenting may get worse, favouring youth engagement in emotional and behavioural problems. The growing empirical support for parental behaviours as a mediator of neighbourhood effects makes the relationships and ties model a critical framework to examine in greater depth the mechanisms responsible for the association between neighbourhood features and adolescents' well-being.

Similarly to the norms and collective efficacy model, however, much of the studies examining the family context as a mediator of neighbourhood influence focused on the detrimental effects of social disadvantage on the family environment, thus favouring youth involvement in problem behaviours such as delinquency and substance use; as an alternative, the aim of the studies was to evaluate the positive association between neighbourhood social connectedness and adequate parenting, which in turn demonstrated to be a protective factor against the development of emotional and behavioural problems. Again, the current conceptualization of the model does not allow an explanation as to how social and structural characteristics of the neighbourhood may promote positive youth development by influencing the family environment.

Although the framework acknowledges that the neighbourhood also represents a resource for parents, the main focus remains on evaluating how the negative or positive effects of neighbourhood on parenting can, respectively, favour or hinder the development of emotional and behavioural problems. Yet, more advantaged neighbourhoods in terms of socioeconomic level and social connectedness among residents, may also have a wellness-promotive effect on adolescents, providing parents with practical resources and emotional support.

### **3.6. Neighbourhood characteristics and adolescent positive development: Identifying new pathways of influence**

The theoretical models illustrated have guided the research about the neighbourhood effects on adolescent development since the origin of the field until the more recent studies. In particular, besides the ecological systems theory, which constitutes the general benchmark for evaluating the



influence of social systems on adolescent development, the other models can be seen as the evolution of the theoretical work in the field.

Indeed, the theoretical models of Leventhal et al. (2000, 2009) have been developed based on the earlier theories examining the processes through which neighbourhood features influence adolescents' well-being. Starting from the social disorganization theory (Kornhauser, 1978; Shaw & McKay, 1942), one of the earliest and most influential theories developed to explain the processes through which neighbourhood features influence adolescents' well-being, Jencks and Mayer (1990) identified five models to explain how neighbourhood effects may be operating. The models re-oriented the studies in the field, expanding the social disorganization framework and suggesting several mechanisms of influence; however, they were not specific enough to explain how given characteristics of the neighbourhood may impact specific aspects of adolescent development. Hence, additional theoretical work has been conducted in the field of neighbourhood research, in order to understand in greater depth how the local community can impact adolescent well-being. Consistent to Jencks and Mayer's (1990) focus on explaining how neighbourhoods transmit their influence on adolescent development by affecting more proximal contexts, Leventhal et al. (2000, 2009) developed three theoretical frameworks with the aim to summarize the theoretical and empirical work on neighbourhood effects.

The institutional resources, the norms and collective efficacy, and the relationships and ties models have the strength of including the general assumptions of the ecological frameworks, the most influential theorizations on neighbourhood effects and the most recent empirical evidence; thus, these models currently represent the theoretical basis for studies in the field.

In the same way as the theories developed in the earlier studies on neighbourhood influence, the models have some limitations which are worth highlighting for the future of theory generation.

First of all, the principal focus of the models identified by Leventhal and Brooks-Gunn (2000) is to connect the structural characteristics of the neighbourhood of residence to adolescent well-being, explaining how some of the features of the local community may impact youth development. In doing that, the theories have the difficult task of understanding, for instance, why in a neighbourhood where people have a low socioeconomic status, youth more frequently display delinquent behaviours. Clearly, the "path" is not so direct, meaning that various theoretical perspectives argued that neighbourhood influences are mainly indirect, impacting the social organizational features of the local community and operating through several ecological levels, such as family, peers, and school contexts.

In developing such complex theoretical models, including different aspects of the local community, as well as multiple social contexts and a wide variety of adolescent outcomes,

identifying specific mechanisms is difficult. This is the reason why, although Leventhal and Brooks-Gunn's (2000) theoretical frameworks originated from the need to understand in greater depth mechanisms of influence of the neighbourhood, within the models these pathways are not so well specified. Otherwise, the mechanisms postulated in the models are general enough to make them adaptable to examine different neighbourhood features, multiple social contexts and several adolescent outcomes.

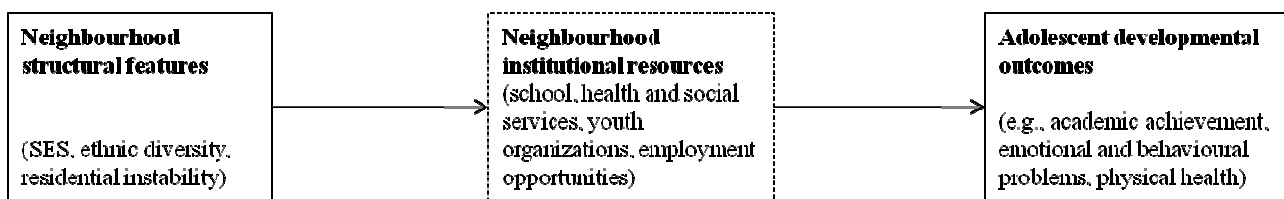
The choice to identify some general mechanisms of neighbourhood influence is due to their possibility to be adopted in the study of different aspects of adolescent development. However, if it's true that it's important to identify some general mechanisms which can influence multiple aspects of adolescent well-being, it's also true that we can't avoid taking into account the peculiarities of the outcome considered. The mechanisms responsible for the association between neighbourhood structure and youth delinquent behaviours might be very different, for instance, with respect to the processes linking neighbourhood social connectedness and adolescent civic engagement. For delinquent behaviours, mechanisms of social control within the community (or a lack of social control) will be determinant, while for civic engagement it will be more useful to examine processes of collective socialization to civic values. Although the general mechanism is similar, that is, the transmission of social norms and values accepted in the community, in one case the neighbourhood constrains adolescents when they get in trouble, in the other case people in the local community teach them how to contribute to the common good. Hence, based on the outcome under investigation, the theoretical models developed by Leventhal and Brooks-Gunn (2000) should be adapted, including mechanisms of influence relevant to the particular aspect of adolescent well-being under investigation.

Finally, a limitation of these theoretical models lies in the strong focus on the relation between neighbourhood structural disadvantage and emotional and behavioural problems during adolescence. As we stated before, the field originated with a focus on examining risk factors within the neighbourhood, in order to understand how they may increase the likelihood of experiencing some problems in different developmental domains. More recent studies, however, have pointed out that neighbourhood social resources (e.g., social connectedness, institutional resources) also represent protective factors able to contrast the negative consequences associated with structural disadvantage. Furthermore, some scholars have started to conceptualize neighbourhood resources as promotive factors, which foster positive youth development by increasing subjective well-being and favouring the acquisition of competencies. Thus, there is increasing interest in understanding the wellness-promotive effects of the neighbourhood, but theorization aimed at explaining how the local community can favour positive development is not yet sufficiently developed. This is the

reason why the models of institutional resources, norms and collective efficacy, and relationships and ties (Leventhal & Brooks-Gunn, 2000) do not specify several mechanisms which could be relevant for the promotion of positive youth development.

In order to summarize the mechanisms of influence illustrated in the models of Leventhal and Brooks-Gunn (2000), in the next section the frameworks are presented in figures, along with an indication of the processes included in the models. In this way it will be possible to point out some of the mechanisms of influence consistent with the frameworks, but not explicitly described and empirically evaluated, which could be useful for future research. In particular, mechanisms that could be responsible for the association between neighbourhood characteristics and adolescent positive outcomes (e.g., self-esteem, prosocial behaviour, civic engagement) will be highlighted.

The mechanisms of influence that are thought to be in action according to the institutional resources model are presented in Figure 1. The model highlights that the detrimental effects of neighbourhood structural disadvantage on adolescent development are due to the negative impact of disadvantage on the quality and the quantity of the institutional resources of the local community.



**Mechanisms of influence:**

- Neighbourhood structural disadvantage reduces the quality and the quantity of institutional resources;
- Lower quality and quantity of neighbourhood institutional resources negatively impact adolescent development.

*Figure 1. The institutional resources model (Leventhal & Brooks-Gunn, 2000).*

A possible pathway of influence which may complete the model is the association between the institutional resources of the local community and the levels of social connectedness among residents. This association has been already pointed out within the social disorganization theory, which posits that the capacity of residents to collaborate on behalf of the common good, promoting a set of socially accepted norms (collective efficacy), affects the quality of the formal institutions of the neighbourhood. Indeed, the quality of social and health services, schools and youth organizations are thought to be influenced by the ability of people in the neighbourhood to work together for common goals and values, establishing formal and informal institutions that promote and enforce these values by regulating behaviour (Sampson et al., 2002). However, if it's true that

the social connections between neighbours can contribute to promote institutional resources, it's also true that the presence of spaces and opportunities for activities can strongly impact the level of social connectedness in the neighbourhood (Anthony & Nicotera, 2008; Quane & Rankin, 2006). The availability of meeting places and community organizations, for instance, has a critical role in binding people together, allowing them to know each other and to develop supportive networks with people in the community. The association between neighbourhood institutional resources and social connectedness could be an important pathway to include in the model, which can help to elucidate how the quality and quantity of institutions in the local community influence adolescents' well-being.

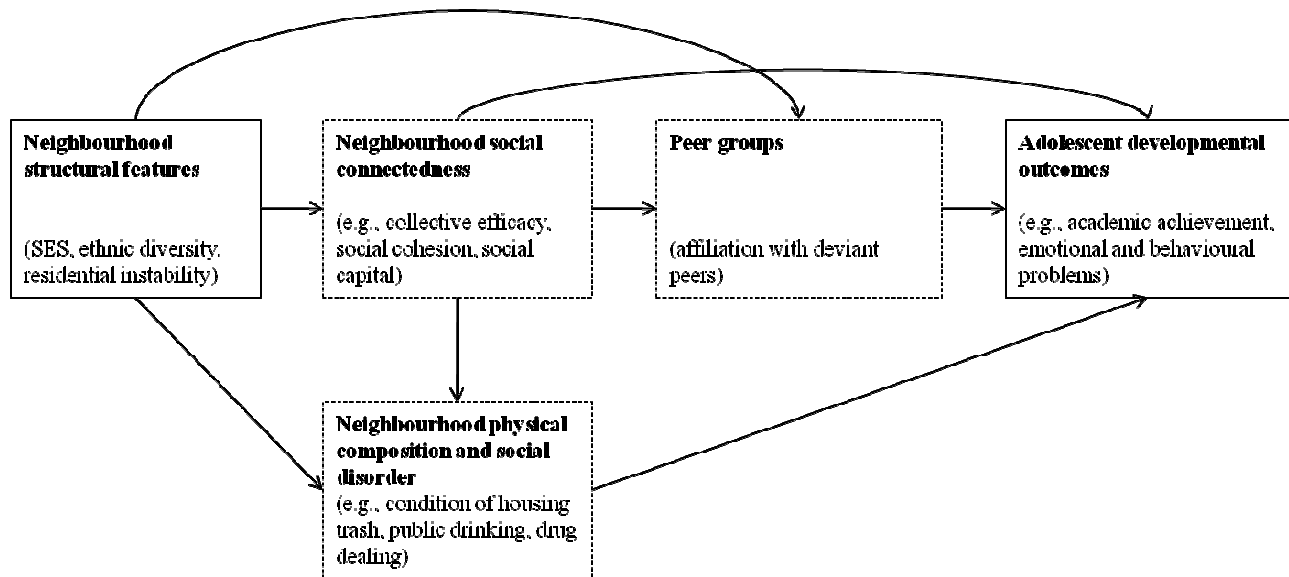
Moreover, there is growing evidence about the positive effects of participation in structured activities on youth development. Besides the studies showing that participation can protect adolescents from the engagement in risk behaviours and decreasing the likelihood of experiencing emotional problems, a number of studies showed the role of participation in promoting positive development (Roth, Malone, & Brooks-Gunn, 2010). Participating in organized activities, for instance, has been found to be associated with the development of prosocial values (Brunelle, Danish, & Forneris, 2007), self-concept (Quane & Rankin, 2006), and empathy (Lakin & Mahoney, 2006); moreover, an increasing number of studies support the association between participation in structured activities and adolescent civic engagement (Obradovic & Masten, 2007; Reinders & Youniss, 2006; Schmidt, Shumow, & Kackar, 2007). According to these findings, the quality and quantity of youth organizations present in the neighbourhood, one of the principal institutional resources of the local community, may influence several aspects of the positive development during adolescence, especially competencies related to their civic engagement. A path linking the availability of organizations in the neighbourhood with adolescents' positive outcome could be a useful fulfillment of the mechanisms illustrated in the institutional resources model.

Finally, it's important to take into account that, in contexts where the concentration of disadvantage is not particularly pronounced, the association between neighbourhood structural characteristics and institutional resources of the local community might not be very strong. In the Italian context, for example, there is not a strong variation across neighbourhoods in terms of socioeconomic level of residents, so it's difficult to find an association between this structural characteristic of the neighbourhood and the institutional resources of the local community. Thus, the quality of schools, social and health services and community organizations does not directly derive from the structural characteristics of the neighbourhood. For this reason, in some contexts neighbourhood structural features and institutional resources may be independent determinants of

the levels of social connectedness between residents, which in turn influence adolescents' development.

The pathways of influence included in the norms and collective efficacy model are presented in Figure 2. According to this theoretical framework, neighbourhood structural disadvantage negatively impacts adolescent development by hindering the creation of social ties among residents, increasing the likelihood of affiliation with deviant peers and favouring the exposure to physical and social disorder in the local community.

Looking at the model from a positive youth development perspective, it's evident that the pathways of influence illustrated have the potentiality to explain not only adolescent's emotional and behavioural problems, but also outcomes of positive development. In particular, both the theoretical frameworks and empirical studies on neighbourhood effects have stressed a particular aspect of neighbourhood social connectedness: social control. Regardless of the specific construct used to study the social relationships among people in a neighbourhood (e.g., collective efficacy, social cohesion, intergenerational closure), social control has been one of the most investigated components of neighbourhood social connectedness. This is particularly evident within the norms and collective efficacy model, in which the mediation effects are largely explained by mechanisms of informal social control.



**Mechanisms of influence:**

- Neighbourhood structural disadvantage hinders the creation of cohesive relationships among residents and increases the likelihood of affiliation with deviant peers;
- Neighbourhood structural and social disadvantage increase the levels of physical and social disorder;
- Neighbourhood structural disadvantage increases the likelihood of affiliation with deviant peers, directly and through its effects on social connectedness and physical and social disorder;
- Affiliation with deviant peers, along with low levels of social connectedness and high physical and social disorder, negatively impact adolescent development.

Figure 2. The norms and collective efficacy model (Leventhal & Brooks-Gunn, 2000).

The principal role of cohesive relationships between people in the neighbourhood appears to be the capacity of constraining other residents' behaviour (especially youth) in accordance with socially accepted norms and values.

Hence, in neighbourhoods with high levels of social connectedness adolescents less frequently display behavioural problems because of the ability of the community to make clear which behaviours are not accepted and intervene when someone violates the socially accepted norms.

In the conceptualization of collective efficacy, however (as well as in most of the other constructs of social connectedness), there is another component that could influence adolescents' development: the willingness of people in the neighbourhood to look out for each other, to help and support the other residents, and to contribute in solving community issues (Odgers et al., 2009; Sampson et al., 1999). Thus, the values and norms shared by the members of the local community not only indicates the behaviours that are best to avoid because they are not socially accepted, but also which behaviours are encouraged within the neighbourhood. When living in a neighbourhood where people help each other and work together for the community, young people may be socialized to prosocial norms and behaviours, learning how to contribute to the common good.

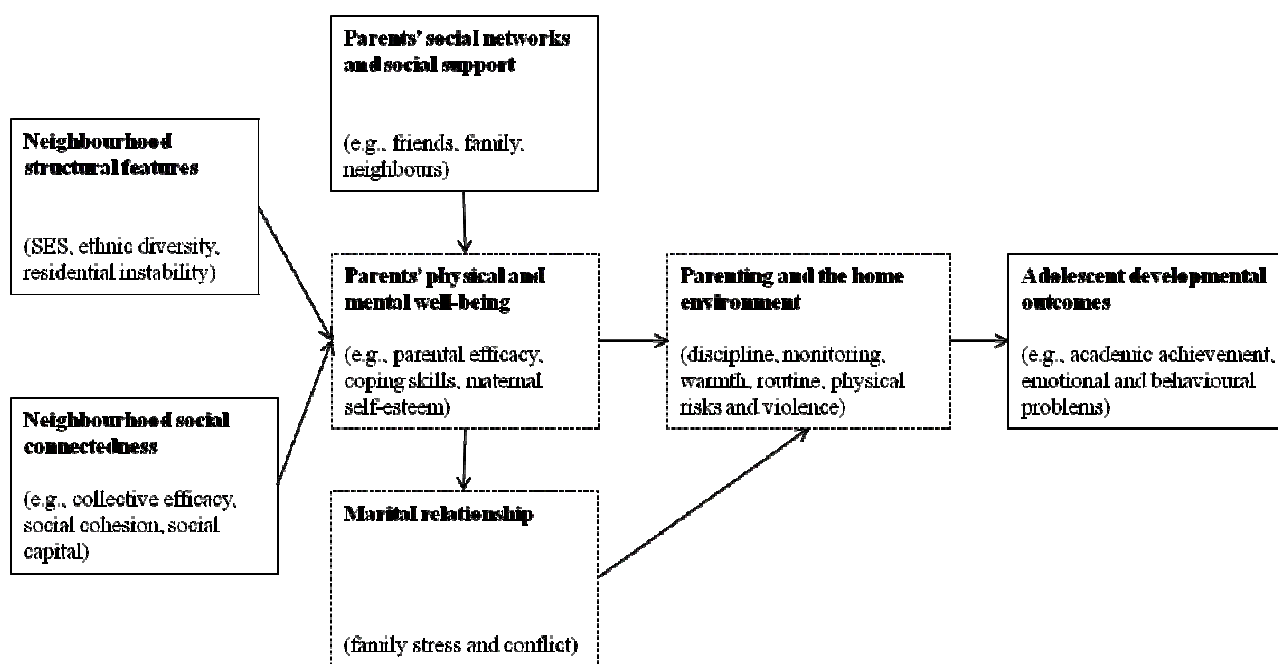
Furthermore, the norms and collective efficacy model postulates that low levels of social connectedness in the neighbourhood increase the likelihood of affiliating with deviant peers; in socially disadvantaged neighbourhoods, in fact, where mechanisms of social control are lacking, the exposure to peers engaged in delinquent or unconventional activities is higher, thus increasing the likelihood of having friends involved in these kind of behaviours (Dupèrè et al., 2007; Ge et al., 2002; Harding, 2007; Haynie et al., 2006). In the same way, neighbourhoods with higher levels of social connectedness, where residents not only control each other's behaviour, but are willing to work on behalf of the community, adolescents could be more likely to have prosocial and civically responsible peers and adults in their social networks.

The pathways that link neighbourhood social connectedness to adolescent positive development, either directly or through the mediation of prosocial peers and adults, are consistent with the norms and collective efficacy model and have received some empirical support. However, since it's not explicitly described in a theoretical model, this potential link has not been widely investigated, so that the specific mechanisms of influence are not clear. More research is needed to understand how the social connectedness in a neighbourhood, that is, the levels of trust and mutual help that characterize the relationships among residents, may socialize adolescents to particular norms and values.

As we stated before, it's difficult to examine the specific mechanisms of influence operating in the neighbourhood without a clear focus on a given adolescent outcome. Since the positive youth development framework includes a wide variety of outcomes, it's important to highlight the need to generate theory and propose pathways of neighbourhood influence, based on specific outcomes of well-being. A promising path for theory development is represented by the growing attention, during the last decade, to the study of neighbourhood context as a predictor of youth civic engagement. In the second chapter we maintained that one of the main reasons for the increasing interest for the study of this association is the strong theoretical link between constructs employed in defining neighbourhood social connectedness (such as social cohesion, neighbourhood support and collective efficacy) and the definition of civic engagement. Indeed, neighbourhood social connectedness refers to the quantity and quality of social interactions among residents within the local community, and the degree to which their relationships are characterized by a willingness to support each other and collaborate to achieve common goals. Considering that civic engagement arises from the interest in working for the common good through the collaboration with other community members, the social processes occurring within the neighbourhood may be a microcosm of public life, in which adolescents have the opportunity to learn how to contribute to the well-being of their community. More evidence is needed in order to confirm the results obtained by earlier studies, and to analyse in greater depth the mechanisms through which neighbourhood characteristics can impact adolescents' civic development, either directly or by influencing their social networks of peers and adults.

The relationships and ties model can also be broadened by the inclusion of mechanisms through which neighbourhood features influence adolescent positive development. As represented in Figure 3, the original model posits that neighbourhood structural disadvantage, along with the presence of physical and social incivilities and low levels of social connectedness among residents, influences adolescents' development through their negative impact on parents' well-being. Parents' physical and mental health is, in turn, thought to impact the quality of parenting with consequences on adolescents' development.

In the relationships and ties model, the authors highlight a potential pathway that could protect parents from the negative consequences of neighbourhood structural and social disadvantage. According to the model, the parents' network of support can provide them with the resources they need to contrast the negative consequences of residing in a disadvantaged area. Relationships with family, friends and neighbours may represent a buffer against the risks of neighbourhood poverty, danger and disorder, minimizing the detrimental effects of inadequate parenting on youth development (Conger et al., 1994; Ross & Jang, 2000).



Mechanisms of influence:

- Neighbourhood structural disadvantage and low levels of social connectedness have negative consequences on parents' well-being.
- Lower levels of parents' well-being are associated with a lower quality of parenting, directly and through the influence on marital relationship.
- The lower quality of parenting negatively impacts adolescent development.

Figure 3. *The relationships and ties model (Leventhal & Brooks-Gunn, 2000).*

Although the model focuses on the buffering effect of parents' networks of support, it's worth noting that by providing parents with additional practical and emotional resources, their social networks may also have a wellness-promotive effect on adolescents. Improving the quality of parenting strategies, the social support received from family, friends and neighbours may promote the acquisition of prosocial values (Carlo, McGinley, Hayes, Batenhorst, & Wilkinson, 2007). Additionally, in a neighbourhood where people look out for each other and work together to solve common issues, it's more likely that parents are also involved in the life of the local community. Having parents who are civically engaged, i.e. participating in the community life, has been found to be associated with higher levels of civic responsibility and participation during adolescence (see chapter 4). Thus, examining how levels of civic engagement in adults and their children vary across neighbourhoods with different social features could enlighten some of the processes linking neighbourhood resources to adolescents' civic development.

Furthermore, the model does not include a link between neighbourhood features and parents' social networks, while it's possible that the presence of cohesive relationships within the local community increases the opportunities for parents to extend their personal networks. An extensive



social network in the neighbourhood, then, could be useful not only to help parents in monitoring and caring for children, but may also represent a resource for adolescents, increasing their opportunities to come into contact with adult role models other than parents.

The potential influence of non-parental adults was the principal pathway of the collective socialization models described by Jencks and Mayer (1990). However, according to this framework, adults in the community represent role models for youth mainly because in affluent neighbourhoods they can show adolescents the successful results of working hard, and by monitoring youth behaviours and intervening when they get in trouble. In neighbourhoods where social connectedness among people is high, and the accepted norm is to support each other, for adolescents it is easier to come into contact with non-parental role models who behave in accordance with this norm; as a consequence, in neighbourhoods with high levels of social cohesion adolescents may be more likely to have civically engaged adults in their social networks. Given the important influence that non-parental adults can have on youth development (Paxton, Valois, Huebner, & Drane, 2006; Scales, Benson, & Mannes, 2006), the inclusion of this pathway could broaden the theoretical model developed by Leventhal and Brooks-Gunn (2000).

In summary, the institutional resources, norms and collective efficacy, and relationships and ties model may be adopted for studying a wide variety of adolescent outcomes, including indicators of positive youth development. However, when choosing a particular aspect of adolescent development, the general frameworks need to be integrated with traditional developmental theories, in order to identify more specific mechanisms of neighbourhood influence. This is particularly true when studying the development of social competencies such as civic engagement, since studies examining the link between the characteristics of neighbourhood contexts and adolescents' positive development are still limited.

### **3.7. Summary and conclusions**

In the chapter the principal theoretical models developed in the field of neighbourhood research and their evolution from the earlier studies until the most recent research have been illustrated. The path we retraced started with the social disorganization theory (Kornhauser, 1978; Shaw & McKay, 1942), went through the frameworks recently developed by Leventhal et al., (2000, 2009), and arrived to some potential improvements we propose for these recent models.

In the presentation of the theoretical evolution of the field, in particular, two main criticalities emerged which need to be addressed by future research: the paucity of theoretical models conceptualizing the neighbourhood as a resource for adolescents' positive development, and the need to identify more specific mechanisms responsible for the association between neighbourhood context and youth development.

Regarding the conceptualization of the neighbourhood of residence as a resource for the promotion of well-being and the acquisition of competencies during adolescence, the “gap” in the literature has also been discussed in chapter 2, while illustrating the main empirical findings in the field of neighbourhood research. As stated before, until the last decade of the past century, the main focus of the literature remained on the association between neighbourhood structural characteristics and adolescent emotional (e.g., depressive symptoms) and behavioural problems (e.g., delinquent behaviours and substance use). However, the attention of the social science for the study of neighbourhood resources during the last decade has been on the rise. In particular, scholars are increasingly interested in examining not only the protective effects of some neighbourhood features, but also the wellness-promotive effects of the local community. Studies based on these assumptions are still limited, meaning that the evidence in the literature is not sufficient to develop theoretical models able to explain the mechanisms of influence.

The “positive youth development” approach is a theoretical framework constructed in developmental science that can support the need to examine factors that favour positive development during adolescence. The term has been introduced to unify the work of scholars and practitioners who are interested in young people’s development as an “affirmative process” (Larson & Wood, 2006). Speaking of positive youth development does not mean denying that many adolescents have problems, but recognizing that a young person without problems is not always a young person who is fully prepared (Pittman, Irby, & Ferber, 2000). In order to understand which individual and contextual factors enhance opportunities for positive development, Leffert et al. (1998) elaborated the developmental assets framework. Although the neighbourhood of residence is included in this framework, that is, conceptualized as a resource providing opportunities for positive developmental outcomes, this theoretical approach does not aim to examine possible mechanisms of influence in detail. Otherwise, as we will see in the next chapter, the general framework of positive youth development has the principal aim of identifying a pool of assets of individuals and contexts which can nurture adolescent growth.

The need of specificity in the identification of processes of influence was the second issue that emerged in the presentation of the theoretical evolution of the field. The difficulties in identifying the processes through which neighbourhood features impact adolescent well-being, partly deriving from the methodological strains typical of neighbourhood research (see chapter 1), are even stronger when analyzing positive developmental outcomes, since the empirical evidence is still limited.

As suggested in chapter 2, a promising approach to overcome these limitations is represented by the integration between the general frameworks developed in neighbourhood studies with developmental theories, chosen depending on the outcome of well-being under investigation.

The present work aims to examine the association between neighbourhood structural and social features and youth civic engagement. Consistent with this aim, the more recent theoretical models elaborated in neighbourhood research (Leventhal & Brooks-Gunn, 2000) were evaluated with respect to their adaptability in the study of adolescent civic engagement, identifying new potential mechanisms of influence and deepening the pathways included in the models.

In order to understand the role of neighbourhood context in adolescent civic development, in the next chapter the theoretical work carried out in neighbourhood studies will be integrated with developmental theories relevant for the understanding of adolescent civic engagement. In particular, the positive youth development approach will be illustrated as a general framework to examine the contextual correlates of civic engagement. Then, the social cognitive theory (Bandura, 1977), the psychosocial theory (Erikson, 1968) and the theory of socio-political development (Watts, Griffith, & Abdul-Adil, 1999) will be presented, highlighting their relevance to the development of civic engagement.

Finally, a theoretical model explaining some of the mechanisms through which neighbourhood features may promote adolescent civic development will be elaborated, integrating the positive youth development framework, the models developed in neighbourhood research and the developmental theories related to civic engagement.

## CHAPTER 4

### NEIGHBOURHOOD CONTEXT AND ADOLESCENT CIVIC ENGAGEMENT: LINKING DEVELOPMENTAL AND COMMUNITY PSYCHOLOGY

*“A society that relies on generalized reciprocity is more efficient than a distrustful society, for the same reason that money is more efficient than barter. Trust lubricates social life.*

*Networks of civic engagement also facilitate coordination and communication and amplify information about the trustworthiness of other individuals.”*

*- Robert D. Putnam -*

#### **4.1. Why focusing on civic engagement in neighbourhood studies**

The field of neighbourhood research has broadly expanded since early studies on social disorganization and adolescent delinquency (Park, 1916; Shaw and McKay, 1942), both from an empirical perspective and a theoretical point of view. However, as stated in the previous chapters, the understanding of the specific mechanisms through which neighbourhood features can impact adolescents’ development is still limited. The difficulties in identifying specific processes of influence partly derives from the methodological strains typical of neighbourhood research: the studies conducted to date have used a wide variety of neighbourhood definitions, measures and designs, so that it’s difficult to integrate the empirical evidence and develop theoretical models based on these findings.

In any way, the main obstacle for the comprehension of neighbourhood pathways of influence is represented by the study of a wide variety of indicators of well-being, making it difficult to enlighten specific processes linking the characteristics of the local community to a given aspect of youth development. The theoretical models developed to date, indeed, identify general mechanisms of influence which can be used to investigate multiple outcomes, but do not include more specific pathways.

The possibility to build on common theoretical assumptions is fundamental for studies examining neighbourhood effects on adolescent development, because it allows the sharing of a general framework from which to elaborate study hypotheses. Moreover, it’s plausible that, despite the specificity of the outcome of well-being under investigation, some general mechanisms of influence do exist, such as the transmission of values from people in the neighbourhood to adolescents (collective socialization).

At the same time, the processes responsible for the association between neighbourhood socioeconomic status and youth involvement in risk behaviours might be very different, for instance, compared to the processes linking neighbourhood social connectedness and adolescent civic engagement. In the first case, the exposure to risk factors (e.g., drug dealing, violence) and the weakness of social control within the local community increase the likelihood of adolescents getting involved in behaviours such as substance use and delinquency. Otherwise, in order to understand neighbourhood influence on youth civic engagement it would be more adequate to examine processes of collective socialization to civic values, paying particular attention to the relationships of trust and reciprocity among residents. The interrelation between neighbourhood and other life contexts, and the potential mediation mechanisms hypothesized also depend on the specific outcome under investigation: to understand how the willingness of people in the neighbourhood to monitor adolescents' behaviour reduces their likelihood to affiliate with deviant peers is very different from examining how cohesive relationships in the local community make it more likely to have civically engaged friends. Although the general mechanism is analogous, that is, the transmission of social norms and values accepted in the community, in one case the neighbourhood constrains adolescents when they display risk behaviours, in the other case people in the local community nurture their civic responsibility and teach them how to contribute to the common good.

For this reason, it's important to create some lines of research focusing on a particular outcome, so that accumulating evidence can be collected and more specific theoretical models on neighbourhood influence can be developed. In particular, the focus on a given outcome of well-being allows the models developed in neighbourhood research to be integrated with traditional developmental theories, thus creating more specific theoretical models explaining how the neighbourhood context can impact adolescent development.

In particular, we chose to examine the association between the neighbourhood of residence and adolescents' civic engagement. As anticipated in chapter 2, in the recent line of research analyzing the wellness-promotive effects of the local community on adolescents' development, there is a growing interest in understanding how living in neighbourhoods with different structural and social features influences youth civic development. Although the characteristics of the local community have been recently studied as resources for the promotion of different social competencies, such as prosocial behaviour (Cantillon, 2006; Romano, Tremblay, Boulerice, & Swisher, 2005), during the last decade a number of scholars have started to examine in greater depth the neighbourhood context as a predictor of adolescent civic engagement.

In our view, there are theoretical reasons for supporting the choice of unifying the field of neighbourhood studies with the area investigating the development of civic engagement. First of all,

the constructs that describe neighbourhood social connectedness and the definition of civic engagement are strongly related. Collective efficacy, social cohesion, intergenerational closure, for instance, all refer to social interactions among people in the neighbourhood, and the degree to which they are willing to help and support each other. Furthermore, some of the constructs employed to define neighbourhood social connectedness (e.g., collective efficacy, informal social control, sense of community) describe the capacity of the residents within the community to work on behalf of the common good, collaborating together to solve community issues. Collective efficacy, indeed, has also been defined as the ability of people in the neighbourhood to draw resources from the community and mobilize them for the common good.

Since civic engagement includes attitudes, behaviours, knowledge, and competencies that derive from the interest in improving the common good, it's plausible that the social processes occurring within the neighbourhood represent a microcosm of the societal functioning, in which adolescents can learn how to contribute to their communities.

Another theoretical reason to integrate neighbourhood studies with the research on the development of civic engagement during adolescence is represented by the presence of related gaps of the research in the two fields. In studies examining neighbourhood effects, the wellness-promotive influence of the resources in the local community has not been widely investigated, compared to the association between structural disadvantage and the development of emotional and behavioural problems. At the same time, in the civic engagement literature, most of the studies have concentrated on examining the individual correlates of civic development, while less attention has been paid to the contextual influences. However, recently these two tendencies have begun to change: there is, indeed, an increasing interest in understanding the role of neighbourhood as a resource for positive development in adolescence, and a growing attention to the contextual correlates of civic engagement. These theoretical shifts led a number of scholars to examine the influence of neighbourhood context in the promotion of civic attitudes, skills and behaviours.

Finally, the integration between neighbourhood studies and research on civic development is supported by a critical assumption of Putnam's social capital theory, according to which the social capital of a community can regenerate itself through its positive effects on individuals. In particular, by studying the influence of neighbourhood social connectedness on adolescents' civic engagement, it's possible to find empirical support for Putnam's theory of social capital regeneration (Putnam, 2000): if the relationships of trust and reciprocity between residents within a neighbourhood favour the development of civic values and behaviours in adolescents, individuals will indeed be able to contribute to the well-being of the local community and wider society. The wellness-promotive effect of neighbourhood context in terms of increased civic competencies and values in adolescents

becomes a resource to be employed for the common good, thus increasing the levels of social capital within the neighbourhood and the larger society. For this reason, the field of research examining the association between neighbourhood characteristics and civic development in adolescence, could constitute empirical support for Putnam's idea of a "cycle of resources", which can be transmitted from the local community to individuals, and "coming" back to the community (through civic engagement) and wider society.

Finally, as anticipated above, there is a growing tendency in developmental science to see adolescents as "resources to be developed" (Lerner, Alberts, Jelacic, & Smith, 2006; Roth & Brooks-Gunn, 2003), emphasizing young people's strengths and the importance of promoting their positive development. Generally speaking, the "positive youth development" framework supports the need to understand which individual and contextual characteristics can promote positive development during adolescence. This theoretical framework includes the work of researchers and professionals who define young people's development as an "affirmative process" (Sherrod, Flanagan, Kassimir, & Syversten, 2006) and who are interested in identifying a set of resources which nurture adolescents' healthy development.

The recent tendency to emphasize positive developmental outcomes represents another theoretical reason to examine in greater depth the processes promoting civic development in adolescence, with particular attention on neighbourhood resources. Thus, in the next section the positive youth development approach is described in order to provide a general theoretical framework for studies on civic development. Afterwards, a detailed definition of civic engagement will be provided, followed by the principal developmental theories relevant to the understanding of civic development in adolescence. The illustration of a new theoretical model for adolescent civic development, integrating processes identified in neighbourhood studies and developmental theories (which will be empirically evaluated in our research), concludes the chapter.

#### **4.2. From deficits to assets: The Positive Youth Development framework**

At the beginning of the 21st century, a new vision of adolescents begins to emerge within developmental sciences, thanks to which youth are increasingly seen as individuals with strengths that need to be nurtured. The growing interest in understanding pathways promoting positive development during adolescence has been fuelled by the collaboration among scholars, professionals and policy makers (Benson, Mannes, Pittman, & Ferber, 2004; Cummings, 2003; Larson, 2006, 2000; Lerner, 2004; Villarruel, Perkins, Borden, & Keith, 2003; Wheeler, 2003).

The new theoretical approach emphasizing positive youth development includes concepts such as developmental assets (Benson, 2003; Leffert et al., 1998; Scales et al., 2000), civic engagement (Sherrod, Flanagan, & Youniss, 2002) and *thriving* (Scales et al., 2000), a construct

that incorporates not only the absence of problem behaviours but also indicators of positive development (helping others, school success, leadership, maintenance of physical health, delay of gratification, valuing diversity, and overcoming adversity). These concepts share the general assumption that every adolescent has the potential for positive development, when opportunities to nurture their competencies and strengths are provided (Lerner et al., 2006).

The recognition of the positive youth development framework has been the result of a theoretically arduous path (Lerner et al., 2006), considering the historical emphasis on the deficit model of youth within developmental science. As stated by Larson (2000), it cannot be argued that developmental psychology has ignored the positive: child development is, by definition, a process of growth and raising competence. However, in the field of social and emotional development, scholars tend to be more exhaustive and articulate about deviations from normative development than pathways whereby adolescents become motivated, competent and civically engaged adults. Thus, in the field of applied developmental psychology, there are plenty of research-based programs for adolescents aimed at decreasing violence, drug use, and other problem behaviours, but a lack of programs that promote well-being and skills.

In general, scholars studying human development have used theoretical models that did not focus on understanding how young people develop in a positive way, cultivating their competencies and becoming active members of society; furthermore, traditional models in developmental psychology did not place enough emphasis on the relational nature of development. The integration between person and contexts, and the interest in young people's potential for positive development was legitimated by the developmental systems models that emerged and gained significance in the last decades of the 20<sup>th</sup> century (Bronfenbrenner, 1979; Damon, 1988; Lerner, 2002; Lerner et al., 2006).

Developmental systems models, instead of reducing individual behaviour to given genetic influences (Gottlieb, 1998), emphasise the *relative plasticity* of human development: according to this principle, there is always some *potential* for systematic change in behaviour, and strategies for improving human life can be found. In particular, this potential for change derives from the reciprocally influential relationships between the developing individual and his/her biological features, psychological characteristics, family, neighbourhood, larger society and historical context (Lerner et al., 2006).

The principle of plasticity is critical for the positive youth development framework, because it implies an optimistic view of the possibility to promote positive changes, thus leading scholars and professionals to focus on strengths that are present within all people and create optimal matches between individuals and their social systems. An optimal fit between the developing person and



his/her social worlds, may, indeed, capitalize on the potential for positive development. Developmental systems theories, thus, provide a basis for supporting the positive youth development framework.

According to Lerner (2004), the theory of positive development in adolescence encompasses five interrelated principles:

- There is a universal structure for adaptive developmental regulations between individuals and their social contexts, involving reciprocal relations between people and their systems;
- These reciprocal, mutually beneficial relations between individuals and contexts have their historical foundations in the biological and cultural heritage of human beings;
- When established in optimal ways, these adaptive regulations imply reciprocally supportive relations between individuals and social institutions;
- Thriving youth have noble purposes, that is, a sense of civic responsibility encouraging them to go beyond their own interests and contribute to the well-being of society;
- The optimal relations between individuals and social contexts may be adaptable to different cultural systems, integrating the universal structures of mutually beneficial relations between individuals and society with values and beliefs of that particular culture.

According to a preventive perspective, the plasticity of development means that scholars and practitioners can be optimistic regarding the possibility of reducing problem behaviours. Most importantly, the same principle can be applied not only to prevent problems, but also to the *promotion* of positive outcomes. Based on these considerations, some scholars started to emphasize that the preventive approach is not equivalent to the *promotive* perspective (Furstenberg et al., 1999), or to the concept of *provision* (Pittman, 1996) of competencies and resources.

Indeed, the critical assumption of the positive youth development framework assumes that preventing a problem does not guarantee adolescents the assets they need to thrive and develop in a positive way. Scholars who endorse this theoretical perspective do not deny that many youth do have problems which need to be addressed, but they acknowledge that “problem free is not fully prepared” (Pittman et al., 2000). Thus, knowing that an adolescent does not smoke, does not drink alcohol and is not engaged in criminal behaviours does not say anything regarding the skills he/she possesses to find a valued job or become an active citizen. Consistent with this, in order to promote adolescents’ positive development, communities need to provide young people with the resources they need to develop their strengths and competencies (Lerner, 2004; Lerner, Sparks, & McCubbin, 1999), along with preventing them from engaging in problem behaviours.

While the critical assumptions of the positive youth development framework are clearly defined, the absence of a shared vocabulary identifying what exactly constitutes a positive

development represents an obstacle for research in the field (King et al., 2005). The lack of a standard vocabulary defining positive development, and the consequent absence of shared measures of adolescents' competencies and strengths, hinders the possibility of evaluating specific theoretical models explaining how the "adaptive developmental regulations" between individuals and contexts may promote a healthy development. As a consequence, developing research-based interventions to promote adolescents' positive development, and evaluate their effectiveness, becomes particularly challenging.

Notwithstanding the above, within the new vision of adolescent development that emerged at the beginning of the current century, several "metaindicators" (Lerner et al., 2005) have been used, identifying latent constructs of the numerous mental, behavioural, and social indicators which could comprise positive youth development. These theoretical latent constructs, initially proposed by Little (1993), and then discussed by other scholars (Eccles & Gootman, 2002; Lerner, 2004; Roth & Brooks-Gunn, 2003), identified the so called five Cs of positive youth development: competence, confidence, connection, character, and caring (or compassion). The five Cs represent the key features of positive development, enabling young people to make an optimal transition to the adult world; the current working definition of these Cs are presented in Table 2.

Five Cs	Definition
Competence	Positive view of one's actions in domain specific areas including social, academic, cognitive, and vocational. Social competence pertains to interpersonal skills (e.g., conflict resolution). Cognitive competence pertains to cognitive abilities (e.g., decision making). School grades, attendance, and test scores are part of academic competence. Vocational competence involves work habits and career choice explorations.
Confidence	An internal sense of overall positive self-worth and self-efficacy; one's global self-regard, as opposed to domain specific beliefs.
Connection	Positive bonds with people and institutions that are reflected in bidirectional exchanges between the individual and peers, family, school, and community in which both parties contribute to the relationship.
Character	Respect for societal and cultural rules, possession of standards for proper behaviour, a sense of right and wrong (morality), and integrity.
Caring and Compassion	A sense of sympathy and empathy for others.

*Table 2. Working Definitions of the Five Cs of Positive Youth Development. (Source: Lerner (2004) and Roth & Brooks-Gunn (2003).*

According to the positive youth development framework, when a young person possesses these five features, another critical aspect of development emerges: contribution. Such a youth will become an adult who makes important contributions not only to him/herself, but also to family, community, and civil society (Lerner, 2004). The contributions made by adolescents encompass both an attitudinal component and a behavioural component, that is, the youth believes in principles and values encouraging contribution to the well-being of their communities, and they act consistently with these beliefs. Theoretically, these young people will simultaneously promote their own positive development and the well-being of their social worlds, thus creating the optimal fit between individual and context postulated in the theoretical framework (Lerner et al., 2005).

The theory of positive youth development proposed argues that when adolescents are involved in adaptive regulations within their contexts, their individual development will be nurtured by their social systems; at the same time, young people will follow a developmental path enabling them to make positive contributions to self and community, thus fostering a “cycle of resources” similar to what is maintained in the social capital theory (Putnam, 2000). Embedding adolescents in caring communities, where people share norms and values of trust and reciprocity, can promote their civic development and their willingness and ability to contribute to civil society (Damon, 1997). As a result, the creation of communities able to foster positive youth development generates opportunities to actualize both individual and community purposes, establishing a system where civil society is constantly improved and perpetuated (Damon & Gregory, 2003).

A critical question that needs to be answered, then, regards which characteristics a community needs to have in order to promote positive development during adolescence. In order to answer this question, scholars working at the Search Institute developed the developmental assets framework, a conceptualization of positive human development synthesizing individual and contextual factors that enhance opportunities for positive developmental outcomes (Benson, 1997; Benson et al., 1998; Leffert et al., 1998; Scales & Leffert, 1999). According to the developmental assets framework, young people need both internal and external resources to thrive: in particular, in their research the authors identified 40 assets, 20 internal, individual ones, and 20 contextual ones. Among the so called external assets we can find contextual features such as family support, positive peer influence, caring school climate and participation in structured activities (Leffert et al., 1998). Furthermore, studies carried out with this theoretical foundation showed the role of a caring neighbourhood and engagement with non-family adults in adolescent thriving (Scales et al., 2000). Benson and his colleagues’ findings have shown that the greater the number of assets possessed by adolescents, the more likely they are to follow a positive developmental trajectory and acquire the

attributes of thriving (helping others, school success, leadership, maintenance of physical health, delay of gratification, valuing diversity, and overcoming adversity).

In summary, the theoretical assumptions and the vision of human development entailed in the positive youth development framework, lend further support to the integration between neighbourhood studies and the research on civic development.

First of all, the definition of positive development, or thriving, gives prominence to attributes that are mostly linked to prosocial behaviours, and to values and norms encouraging a contribution to the civil society, such as helping others and valuing diversity. Similarly, as we will see in greater depth in the next section, civic engagement includes attitudes and behaviours that derive from the interest in improving the well-being of the local community or the larger society. Hence, the positive youth development framework identifies civic engagement as one of the main features of an ideal developmental trajectory, underlying the need to understand which factors may promote civic attitudes, behaviours and competencies.

Furthermore, Leffert et al. (1998) included neighbourhood context within developmental assets, thus comprising the local community among factors that enhance opportunities for positive development. According to the authors, living in a caring neighbourhood, where people trust and help each other and adolescents can create supportive relationships with peers and adults, increases their opportunities to develop their strengths and competencies (Scales et al., 2000). According to the theory of positive development, then, neighbourhood context is one of the social systems where adolescents develop and learn values and skills, and this assumption is consistent with the choice of integrating neighbourhood research with studies investigating adolescent civic engagement.

Finally, as we stated before, when adolescents are embedded in caring communities they develop a critical feature, named “contribution”, which allows the establishment of an optimal, reciprocally beneficial fit between individuals and contexts. Adolescents’ competencies and well-being are nurtured by their communities, and the skills and values they learn enable them to contribute to the well-being of the local community and the larger society. This theoretical perspective, critical in the positive youth development framework, is strictly related with Putnam’s (2000) idea of a cycle of resources going from communities to individuals and vice versa, and gives further support to the potential role of neighbourhood in promoting adolescent civic engagement.

The theory of positive youth development is a fundamental framework for examining the association between the characteristics of the local community and the development of strengths and competencies during adolescence, because it provides a general vision of human development on which to base empirical research. However, the theory does not identify specific mechanisms of influence that can explain which characteristics of the neighbourhood might promote or hinder the

development of one particular aspect of adolescent development: civic engagement. For this reason, it's useful to integrate this general framework with developmental theories explaining in greater depth the potential pathways of influence. In the next sections, a detailed definition of civic engagement will be provided, followed by the illustration of the developmental theories most relevant in the study of adolescent civic development.

### **4.3. What is civic engagement?**

Broadly defined, civic engagement refers to attitudes, behaviours, knowledge and skills that are aimed at improving society and is derived from the interest in improving the common good. In general, civic development implies an understanding of how civic society functions, and the acquisition of beliefs, competencies and behaviours that allow citizens to meet, discuss their common problems and work together to promote their interests (Youniss et al., 2002).

Civic knowledge generally indicates the comprehension of national and international history and government (Rubin, 2007), as well as basic democratic principles and processes (Torney-Purta, 2002). Strictly associated with civic knowledge, civic skills and competencies represent the ability to apply knowledge, and include the competencies that individuals need to be active within their communities, such as organizing a public meeting, understanding and interpreting political communication and identifying key people or groups who could help in solving community issues (Flanagan, Syvertsen, & Stout, 2007).

Civic attitudes, variably named civic responsibility, civic mindedness, or civic identity (Youniss et al., 1997), indicate feelings of responsibility toward the communities in which an individual is embedded, and the idea that every member has a central role in contributing to the well-being of the local community or the larger society. Civic behaviours refer to actions that, consistently with this belief system, aim to solve community issues and improve the common good, such as volunteer work and supporting charities. These kinds of behaviours are generally called civic participation (e.g., Zaff, Malanchuk, & Eccles, 2008), civic involvement or civic engagement, but the terms are often used interchangeably.

Theoretical and empirical evidence suggest another useful distinction to understand civic engagement, which includes two different components: community involvement, or volunteering, defined as a person's commitment to improving the well-being of other members of the community, and political involvement, or citizenship, conceptualized as the personal involvement in political issues at the national as well as at the local level, including voting behaviours and staying informed about political events (Obradovic & Masten, 2007).

The terms pertaining to the field of civic engagement are relatively new in psychology, so that studies have used different definitions and there is no single operationalization accepted as the

standard (Da Silva et al., 2004). In general, most of the definitions employed refer to the willingness of an individual to actively take on the role of being a citizen, being concerned about the welfare of others not only at a personal level but also at societal levels (Bowes, Chalmers, & Flanagan, 1996). Considered the novelty of the topic within the field of psychology, questions remain as to what being a “good citizen” entails, as political scientists have argued that definitions of citizenship are comprised in specific political ideologies (Westheimer & Kahne, 2004). In the political field, indeed, scholars have stressed the importance of political behaviours such as voting (Walker, 2000), while developmental psychologists have expanded the definition of civic engagement to include both conventional political activities, and all the behaviours aimed at helping others more remote than family and friends (Da Silva et al., 2004). Moreover, since different studies showed that during adolescence these aspects are strongly related and that community involvement can be a significant predictor of more traditional political involvement (Youniss, McLellan, Su, & Yates, 1999; Youniss et al., 1997), they are often examined as components of the same construct.

Defining and measuring civic engagement is particularly challenging during early and middle adolescence, when opportunities to be politically active are uncommon, but youth can contribute to their communities in several different ways. For this reason, in the present study we employed a broad definition of civic engagement, including attitudes and behaviours deriving from the interest in contributing to the common good through collaboration with other community members. In particular, we do not differentiate between traditional political engagement and community engagement, but we selected components of civic engagement that are most relevant during early and middle adolescence (Zaff et al., 2008).

In the current work, we will use the label adolescent “civic engagement” with a general meaning, including the feelings of responsibility towards the common good, the actions aimed at solving community issues and improving the well-being of its members and the competencies required to participate in civic life.

With the label “civic responsibility” we refer to attitudes, beliefs and feelings of responsibility toward the communities in which the adolescent is embedded, and the importance attributed to the role of each community member in contributing to the common good. Civic responsibility, thus, indicates the degree to which an adolescent regards working on behalf of his/her communities to be a personal responsibility, and the idea that this responsibility is shared among community members. Given that we focus on early and middle adolescents’ civic engagement, it’s useful to take into account that they are still developing their own system of beliefs in terms of what it means to be a good citizen. Especially for early adolescents, it’s possible that their attitudes toward global societal issues, such as human rights, environmental problems or inequalities, are not fully articulated yet, as

compared to issues pertaining to their own neighbourhood. For this reason, we differentiated local civic responsibility and global civic responsibility. The former includes attitudes and beliefs regarding the responsibility of each resident to work on behalf of the local community, and the degree to which adolescents think that it's important to be actively involved in their own neighbourhood. With the label "global civic responsibility" we refer to attitudes and beliefs related to general societal issues, such as pollution and inequalities, and the ideas about the role of each member of the society in solving these global issues.

Regarding the behavioural component of civic engagement, we use the term "civic behaviours" to indicate actions that, based on a civically responsible belief system, aim to improve the common good. Considering that during early and middle adolescence it's rather infrequent to be involved in formal organizations working to improve the local community or the larger society, we selected behaviours which can be defined as "civic" in nature but that may also be common during adolescence. For instance, civic behaviours include remaining updated on events occurring in the local community, in the country and in the world (Flanagan et al., 2007), volunteering for people in need (regardless of any possible involvement in a formal organization), and working to improve the neighbourhood (Albanesi et al., 2007).

"Civic competence", finally, refers to the perception of adolescents as possessing some of the skills necessary to participate in community life. Our working definition of civic competence, thus, encompasses abilities such discussing the problems with other people, organizing a meeting and writing a letter to a newspaper, which represent general skills useful for different forms of civic participation.

The choice to consider three different components of civic engagement derives from the multifaceted nature of the construct (Wilkenfeld, 2009); although researchers sometimes employ multidimensional constructs (e.g., Bobek, Zaff, Li, & Lerner, 2009), or focus specifically on one of the components of civic engagement (e.g., Kahne & Sporte, 2008), in the current work three different aspects are examined separately, in order to understand how they relate to each other.

The different components of civic engagement, consistent to the positive youth development framework, can be seen as indicators of thriving, because they reflect the ability to care for their communities and contribute to the common good. Moreover, the theory of positive development maintains that, when adolescents are involved in adaptive regulations within their contexts, their individual development will also be nurtured by their caring social systems, as confirmed by empirical evidence. The association between adolescent civic engagement and other positive developmental outcomes represents a critical rationale with which to examine in greater depth which factors are able to promote civic development.

#### ***4.3.1. The importance of adolescent civic engagement for other aspects of positive development***

The development of civic engagement is an important aspect of the identity formation process during adolescence (Erikson, 1985), involving an understanding of one's role and relationships to the broader society (Yates, 1999). The achievement of community awareness is important for personal development in adolescence (Erikson, 1968; Lerner, 2004), when youths are developing their identity and begin to question how they are embedded into the society in a way that goes beyond their family and friends.

Consistently with theoretical perspectives defining civic engagement as a critical aspect for a positive development, there is empirical evidence that civic engagement relates to better psychosocial adjustment (Schmidt et al., 2007). Indeed, as we stated before, adolescents have the ability to improve the communities in which they are embedded by volunteering in local organizations and through engagement in informal prosocial activities. This involvement in community life, in turn, can promote psychological, social and intellectual growth for young people (Fredricks & Eccles, 2006; Johnson, Beebe, Mortimer, & Snyder, 1998).

There is evidence, for example, that higher levels of civic engagement (variably operationalized in terms of its different components: attitudes, competencies, behaviours) represent a protective factor against the engagement in risk behaviours such as substance use, fighting and bullying (Eccles & Barber, 1999; Mahoney & Cairns, 1997; McNeal, 1995; Vieno, Nation, Perkins, & Santinello, 2007; Zaff & Michelsen, 2002). Furthermore, a number of studies have shown a positive association between adolescent civic engagement and academic achievement and the likelihood of obtaining a college degree (Davila & Mora, 2007; Schmidt et al., 2007). Research findings have shown that participation in community-based activities is positively related to other aspects of adolescents' school experience, such as higher motivation for learning and towards school, grade point average, academic self-esteem and youth involvement in student government (e.g., Johnson et al., 1998; Kleiner & Chapman, 1999; Shumer, 1994).

Adolescents' engagement in civic activities, such as volunteering, is also associated with better psychosocial adjustment, increasing, for instance, adolescents' self-awareness and helping behaviours (Reinders & Youniss, 2006). According to Wandersman and Florin (2000), being actively engaged in community life implies an aspiration for life that facilitates individual well-being. Similarly, Gamson (1992) posits that participating in social movements favours the development of personal identity and increases the opportunities for self-realisation, while other scholars (Berkman, Glass, Brisette, & Seeman, 2000) suggest that community-oriented behaviours promote individuals' social well-being (Keyes, 1998). In a review of 44 studies exploring the potential developmental benefits of adolescents' participation in community services, Yates and



Youniss (1996) pointed out that civically engaged youth have an increased awareness of their competencies, display prosocial behaviours more frequently and have higher levels of self-esteem. Within the studies reviewed, adolescents displaying higher levels of civic engagement also reported a higher internal locus of control and a better perceived capacity in solving social and interpersonal issues.

Another important finding in the field regards the relation between the levels of civic engagement in adolescence and involvement in community life in adulthood. Levels of civic attitudes, behaviours and competencies in adolescence have consistently been found to predict levels of civic engagement in adulthood (Hart et al., 2007; Youniss et al., 1997; Yates & Youniss, 1998; Zaff et al., 2008), suggesting that explanations of individual differences in civic engagement among adolescents may have implications for the manifestation of civic involvement in adulthood.

Findings indicating that being civically engaged during adolescence not only promote youth personal well-being, but also their future involvement in civic life, gives further support to the need of understanding which factors may facilitate civic development starting from early adolescence.

Youth civic engagement, indeed, is currently considered an important vehicle in promoting both adolescents' positive development and the well-being of the civil society, through their current and future contribution to their communities (Balsano, 2005). According to this perspective, within the dynamic relation between adolescents' civic engagement and the promotion of a more civil society (Youniss et al., 1997), youth involvement in community life can be seen as a crucial aspect for the preservation of a democratic system (Lerner, 2004). For this reason, Roulier (1998) defined adolescent civic engagement and positive development as "the currency of a healthy community" (p. 188), constituting a crucial component of social capital theory: consistently with what was postulated in Putnam's theory (2000), the more a community can promote youth engagement in civic life, the more social capital the society will have available (Hyman, 2002).

Given the importance of engaging adolescents in civic life, for their positive development and for the effective running of society (Flanagan & Sherrod, 1998), it's crucial to understand how civic attitudes, behaviours and competencies develop in youth. Unfortunately, there is a relative dearth of conclusive findings on the predictors of youth civic engagement (Zaff et al., 2008). Furthermore, while research on the topic has grown in recent years, theory generation on civic development has been less fruitful (Wilkenfeld, Lauckhardt, & Torney-Purta, 2010). In the next sections, the main developmental theories related to adolescent civic engagement will be illustrated.

#### **4.4. The development of civic engagement in adolescence: Theoretical models**

Considering the relative novelty of the topic within developmental psychology, the paucity of theoretical models explaining the development of civic engagement during adolescence is not surprising. However, as suggested by Wilkenfeld and colleagues (2010), youth civic development can be examined by adopting general theories in developmental science. These theories, although representing general models of human development, can be useful in understanding some of the processes through which the different components of civic engagement develop. After the illustration of these traditional developmental theories, which will be discussed with a focus on adolescent civic engagement, a model that has been generated specifically to explain civic development will be introduced.

Civic engagement represents an aspect of adolescent development that is strongly related to other facets of social and cognitive development. For this reason, as stated by Wilkenfeld and colleagues (2010), in order to understand civic development it's useful to consider developmental theories that, due to their focus on the cognitive and social domains, are also particularly relevant to the civic domain.

Although the theories discussed in the next sections are different in terms of theoretical foundations or specific processes described, they have several developmental principles in common (Wilkenfeld et al., 2010). First of all, consistently with the positive youth development framework, adolescents are seen as active agents in their own development, which is defined as a process of self-change (Sherrod et al., 2006). Moreover, according to these theories development is bidirectional, that is, social contexts have an influence on youth, who in turn influence their environment; the reciprocal nature of socialization is another assumption that the following theories share with the developmental assets framework. In addition, development is conceived as a continuous and discontinuous process, deriving from both maturation and learning and takes place in multiple settings. As a consequence, opportunities for development differ for individuals growing up in diverse contexts. Finally, developmental opportunities change across different developmental stages, as well as relevant contexts of influence that vary across the lifespan.

Developmental theory is crucial for the field of research of civic engagement, because it allows an understanding of the mechanisms responsible for changes in civic attitudes, behaviours and competencies.

##### ***4.4.1. The Social Cognitive Theory***

The idea according to which people learn certain behaviours by observing other individuals characterized psychological theories as far as in the first half of the past century (Miller & Dollard, 1941).

By pointing out that this approach has concentrated on environmental influences on behaviour (e.g., social learning theory), that disregarded the role of cognition, Bandura (1977) broadened this theoretical perspective through the creation of the social cognitive learning theory (Bandura, 1986). This new conceptual framework kept the focus on environmental influences on behaviour, but also took into account the role of cognitive and affective factors in human development. According to Bandura (1986), the same learning principles drive the development at every age, so that his theory cannot be defined “developmental” in the strict meaning of a series of changes mostly derived by age progression (Astuto et al., 2010). Within the theory, the factor thought to have the most relevant influence on individual behaviour is his/her sense of self-efficacy (Bandura, 1989), which is the confidence in one’s ability to execute the actions required for achieving desired outcomes (Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001). Self-efficacy mostly derives from four sets of characteristics and experiences:

- performance mastery experiences: when individuals successfully achieve desired outcomes thanks to their own actions, their sense of self-efficacy is nurtured by this positive experience;
- judgements of one’s own abilities in comparison with other people: taking actions that result in successful outcomes, and comparing this experience with others’ that did not achieve the same results, contributes to increase the sense of self-efficacy;
- social influences: receiving positive feedback and encouragement from other people reinforces feeling of self-efficacy;
- emotional states: the positive emotions associated with successful experiences increase the confidence in one’s own abilities, further contributing to self-efficacy judgements.

According to Bandura (1997), the sense of efficacy can also be conceptualized as a characteristic of a group of people; with the term “collective efficacy” he refers to a group’s shared belief in the capacity of its members to organize and accomplish the actions required to produce desired outcomes. Based on the concept of individual self-efficacy, collective efficacy represents the perceived ability of people in a group to work together in order to address common issues. Looking at Bandura’s definition of the construct, we can note that it’s partly overlapping with the conceptualization of collective efficacy given by the scholars working in the field of neighbourhood research. While Bandura refers to the perceived capacity of the group to accomplish common goals, Sampson and colleagues (1997) describe the characteristics of social relationships among community members favouring collective action.

Another critical statement of the social cognitive learning theory claims that learning occurs thanks to direct interactions with other people, or through indirect observations of others’ behaviour and its consequences. Observational learning, also named “modeling”, is a process through which

norms, values, beliefs and behaviours can be transmitted to young people. Modeling is a critical component of socialization, because it influences adolescent attitudes toward other people and issues, thus impacting the decision to perform certain behaviours. Socialization occurs even when behaviour is not intentionally observed, because social expectations can be cognitively processed and internalized.

Why is social cognitive theory important in explaining civic development during adolescence? Concepts such as self-efficacy and observational learning, the two principal assumptions of the theory, are clearly relevant in explaining adolescent civic development.

The concepts of self-efficacy can be applied to a wide variety of specific competencies, including the skills comprised in the civic domain. Indeed, a sense of confidence related to the abilities required for contributing to their communities can encourage adolescents' decision to get engaged in local organizations and participate in community life. According to the social cognitive theory, when perceiving to possess the abilities for contributing to the well-being of the community, individuals are encouraged to display civic behaviours. Then, when young people perceive that they are efficacious, for instance, in discussing problems with groups of people, organizing meetings or speaking in public, it's more likely that they will use their abilities to improve some aspect of community life.

Furthermore, Bandura (1997) applied the concept of self-efficacy specifically to the political domain, defining political efficacy as the confidence that through political participation some aspects of society can be changed. The concept of political efficacy encompasses both an internal component, referring to one's perceived capacity to impact political events and decisions, and an external component, represented by the perception of the government's response to the efforts of individuals. The concept of self-efficacy applied to the civic domain, as well as the construct of political efficacy, are important in understanding the individual decision to be an active citizen and to participate in community life.

Given that a sense of efficacy is a critical component in taking civic actions, it's important to understand which factors nurture the confidence in one's own abilities to contribute to the common good. Consistently with what was stated in the social cognitive theory, adolescents' successful experiences of civic participation will contribute to the confidence that their contribution can make a difference in their communities (e.g., at school), thus increasing the perception of self-efficacy; comparing their positive experiences with less successful civic actions can further nurture their perception of being capable in comparison to others. In addition, receiving positive feedback from other people and the positive emotions associated with the achievement of desired outcomes for the

community (e.g., the permission to use a public space for people in the neighbourhood) reinforce feelings of self-efficacy.

Another process that, following Bandura's theory (1986), influences adolescent civic behaviour is observational learning. Through interactions with other people, or observations of others' behaviour and the consequences associated with their actions, certain social norms, values and behaviours can be transmitted to young people. Considering the role of modeling for young people in civic development, Torney-Purta (1995) illustrated the process of political socialization within the family and peer contexts. The same processes which, according to the authors, take place with parents and peers can occur with people that adolescents meet daily, and with whom they interact in the neighbourhood of residence. In particular, based on prior experiences and biological factors, young people develop cognitive structures including ideas and perspectives about societal functioning and their role in society. Cognitions, however, are changed over time through the exposure to new visions and opinions, for example reading the news or discussing social issues with other people. Social relationships, thus, represent the main vehicle through which adolescents create and change their beliefs related to the civic domain. Living in a neighbourhood where people are used to discuss common issues and work together to solve their problems (e.g., organizing events to revitalize a disadvantaged area), for instance, may change adolescents' cognitive structures by transmitting values of civic responsibility and the idea that each individual has a role in contributing to the well-being of the community. This process can occur both through direct interactions with civically engaged people, as well as by observing behaviours of other residents, through the norms that those behaviours transmit to adolescents.

In summary, the processes illustrated in the social cognitive theory (Bandura, 1977) are important in order to understand of civic development during adolescence. Moreover, the assumptions of the theory are consistent with conceptual models developed in neighbourhood research, so that an integration between the two perspectives can help to elucidate the development of civic attitudes, behaviours and competencies.

#### ***4.4.2. The Theory of Role Taking***

Selman's theory of role taking and social awareness (1980, 2003) describes the development of various abilities that are important for adolescent civic engagement. Endorsing a social cognitive perspective, the theory concentrates on the concept of perspective taking, that is, a coordinated understanding of the diverse perspectives of individuals, groups, and the society as a whole. According to Selman, perspective taking is a fundamental ability for adolescents' social relationships, especially when they participate in social processes involving interpersonal

negotiation. Selman's model of interpersonal understanding is based on five different developmental stages:

- Stage 0, named *egocentric and undifferentiated stage* (age 3 to 6), in which children cannot make a clear distinction between their own understanding and interpretation of an event or a social situation;

- Stage 1, called *differentiated and subjective perspective-taking stage* (age 5 to 9), when children begin to be aware that the other people can have perspectives and opinions different from their own, and subjective experiences start to be differentiated from others' experiences;

- Stage 2, denominated *self-reflective thinking or reciprocal perspective-taking stage* (age 7 to 12), in which preadolescents realize not only that other individuals have their own social or cognitive perspectives, but also that other people can think about their own thinking and take the subject's role. From stage 1 to stage 2 a critical developmental advance occurs, consisting in the capacity to take the perspective of another individual;

- Stage 3, that is, the *third person or mutual perspective-taking stage* (age 10 to 15), when early adolescents, thanks to their perspective-taking skills, gain the capacity for a more complex kind of social cognition. At this stage, the adolescent becomes able to see all parties from a more neutral and generalized third person perspective, allowing the youth to "step outside an interpersonal interaction" (Selman, 1980, p. 39) and at the same time coordinate the perspectives of self and others;

- Stage 4, named *in-depth and societal perspective-taking stage* (age 12 to adulthood), in which adolescents or young adults can consider the shared perspective of the "generalized other": the social system. At this level, adolescents can also abstract multiple generalized perspectives of others to a societal perspective that all individuals can share.

The third and fourth stages described by Selman (1980, 2003) are particularly relevant to the development of civic engagement during adolescence. At these levels, young people develop the ability to consider their own opinions, emotions and behaviours from the other people's perspective, and they also realize that others are able to do the same. Furthermore, they can differentiate between one person's perspective and a more generalized point of view that characterizes the social system as a whole. Indeed, at advanced levels of development the individual also gains the capacity to endorse a societal perspective, understanding simultaneously multiple points of view, how they are interrelate, and how they impact the other members of the group.

The theory of role taking (Selman, 1980, 2003) is critical in the understanding of civic development, because feeling responsible for and participating in community life inevitably implies interacting with people with different perspectives, and eventually resolving conflicts that may

arise. In the neighbourhood of residence people have the opportunity to interact with individuals who take very different positions on issues, because they come into contact with each other mainly on the basis of geographical proximity. Although people in a neighbourhood may be similar in terms of socioeconomic status, the fact that they can't choose each other makes it easier for them to know people who have different backgrounds (Flanagan, Gill, & Gallay, 2005), and as a consequence can have diverse opinions on issues and events occurring in the local community. By coming into contact with many different perspectives, adolescents find it easier to distinguish between their own point of view and a generalized one that might characterize the average member of society. Since civic responsibility and activism brings groups of people with both common and diverse aims and perspectives together to discuss issues, this capacity is fundamental to the development of civic engagement. In addition, the ability to understand a generalized, neutral perspective that characterizes a group of people is an antecedent of the capacity to understand which values and behaviours are encouraged in one's own neighbourhood; once adolescents comprehend the social norms and values shared by people within the local community, they can learn this generalized perspective characterizing the average member of the neighbourhood and decide to behave consistently with these norms.

At the *in-depth and societal perspective-taking stage*, moreover, the ability to consider a group's perspective is generalized to the societal level, making adolescents able to understand that members of society share common as well as personalized goals; this capacity is one of the main qualities of an appropriate citizenship, which allows individuals to feel a sense of responsibility for the society as a whole, and contribute to its well-being. Thus, the developmental advances occurring at this stage may be salient to generalize civic responsibility from the local level to the larger society, and support adolescents' involvement in societal issues.

The theory of role taking and social awareness (1980, 2003) is important to understand how several skills that are relevant to adolescent civic engagement develop. Future research should examine more in depth how these competencies relate specifically to the civic and political domain, and the contextual influences impacting the development of perspective taking. Similarly to social cognitive theory, integration between Selman's theory and neighbourhood research could elucidate some of the processes facilitating or hindering civic development during adolescence.

#### ***4.4.3. The Psychosocial Theory***

Erikson's psychosocial theory (1968) represents another developmental theory that could be useful in the examination of youth civic engagement. According to the psychosocial theory, during the lifespan development occurs through eight stages, each representing a particular crisis or tension that needs to be resolved in order to advance to the next stage. In each stage, the psychosocial crisis

is driven by physiological changes, along with the influences coming from family and society. Since development is considered cumulative, the negative or positive outcomes of a crisis impact the functioning during later stages; moreover, the resolution of one stage is not permanent, but later experiences can alter its outcomes.

The eight stages are all relevant for the development of civic engagement, although some of them are more specifically involved in civic responsibility and participation.

As pointed out by Wilkenfeld and colleagues (2010), starting from the first stage of development children learn abilities which lay the foundations for their future civic engagement. At this level, named *trust versus mistrust* (age 0 to 1), children develop the ability to trust other people, based on the consistency of their caregivers' behaviour. When this stage is resolved successfully, children generalize the confidence in their caregivers to the world around them; the social trust developed during infancy, thus, may be the basis for developing trust in adolescence. Since social trust is considered an antecedent of youth civic engagement (Flanagan et al., 2010), as well as a component of social capital (Putnam, 1993, 2000), the processes occurring at this stage may be important for the future development of civic values and behaviours. Examining this association in greater depth may explain part of the influence of parenting styles (Duke et al., 2009; Kahne & Sporte, 2008; Zaff et al., 2008) on adolescent involvement in civic life.

During the second stage, called *autonomy vs. shame and doubt* (age 1 to 3), children start to explore the environment around them and to assert their independence, for instance choosing which toys to play with. At this stage, it's critical for children to be encouraged in their increased independence, in order to develop confidence and security in their own abilities. Although not directly related to civic development, this stage may have consequences for the children's sense of efficacy, which is the basis for the future development of civic and political efficacy. Similarly, the experiences occurring in the third stage (*initiative vs. guilt, age 3 to 6*), when children begin to plan and initiate activities with others, may be important for their future confidence in their abilities. Indeed, when resolved successfully children at this stage develop a sense of initiative that allows them to feel secure about their capacity to make decisions and lead other people, crucial skills for future civic participation.

Strongly related to the second and the third stage, the *industry vs. inferiority* stage (age 6 to puberty) may more specifically relate to the development of a sense of competence and agency in the civic domain. At this stage, children begin to develop a sense of pride about their growing skills and their accomplishments, by initiating and carrying out projects, and feeling satisfied about what they can achieve. If children are reinforced for their initiative, they begin to feel industrious and strengthen the confidence in their ability to accomplish goals. A more complete understanding of



factors that specifically encourage a sense of agency in the civic domain could be useful to elucidate processes favouring civic engagement during childhood and early adolescence. For instance, providing children with age appropriate opportunities of involvement in the community, could facilitate the development of the belief that one's own action can be useful, thus fostering a sense of industry (Wilkenfeld et al., 2010).

The last stage that could help in understanding youth civic engagement is the *identity vs. diffusion* stage. Occurring during adolescence, processes involved at this stage are maybe the most relevant for civic development. During this period, adolescents begin to form their own identity and ideas about their role in society, based on the multiple roles and identities they explore and the outcome of their explorations. Although civic identity has not often been examined from a psychosocial approach, Erikson (1958) gave a definition of political identity, that is, the sense of connection with other people and the commitment to a collective future. As anticipated before, a critical component of the identity formation process is the understanding of our place in society; during adolescence, then, young people are not only searching for continuity between their past and present experiences, but they are also trying to form connections with society's traditions and institutions (Erikson, 1968; Youniss & Yates, 1997). Considering the processes occurring at this stage, we can argue that the identity vs. diffusion stage has a double relevance for civic development: on one hand, the development of a worldview and a personal set of values characterizing the general process of identity formation may translate in feelings of civic responsibility; on the other hand, the development of a political identity represents a more specific component of civic engagement, as supported by studies examining youth identity processes related to civic and political life (e.g., Flanagan, Syversten, Mitra, Oliver, & Sethuraman, 2005).

Given that we are discussing developmental theories for their relevance to the understanding of adolescent civic engagement, the last three stages (*intimacy vs. isolation, generativity vs. stagnation, ego integrity vs. despair*, describing human development from young adulthood forward) proposed by Erikson (1968) are not described in this section. However, it's important to underline that the middle adulthood, characterized by the *generativity vs. stagnation* stage, is conceptualized as the "civic stage" for definition, during which individuals give back to society by raising children, working, and participating in community life.

Erikson's psychosocial theory (1968) points out three main concepts relevant to civic engagement. First of all, the early development of the ability to trust other people, which could constitute the basis for developing a sense of trust in adolescence; since social trust is considered an antecedent of civic engagement and a critical component of social capital, the concept is fundamental in examining civic development. Moreover, the sense of industry that children develop

through the experiences of stages 2 to 4, represents an important construct in order to elucidate which factors may specifically promote a sense of agency in the civic domain during adolescence. Finally, the general process of identity formation occurring in adolescence has strong relevance for civic development, because young people begin to create both their own worldview and a personal set of values, as well as a political identity and a more specific component of civic engagement.

Erikson's theory of development (1968), which adopted a lifespan perspective, provides some guidelines for studying the antecedents of adolescent civic engagement. However, there is a need for research evidence to understand how psychosocial crises are reflected in civic outcomes, and which contextual factors may facilitate a successful resolution of the identity vs. diffusion stage, in particular. Similarly to what was stated in relation to the other theories illustrated, integration between the psychosocial theory and the theoretical models developed within the field of neighbourhood research may be useful for a more complete understanding of civic development.

#### ***4.4.4. The Theory of Sociopolitical Development***

Although developmental theories presented in the previous sections are well established, few of them have been explicitly adopted for examining civic development in adolescence. Due to the relative novelty of civic engagement as a topic in psychology, theories developed with the aim of addressing the civic domain are rare, and they are in an early stage of elaboration and empirical evaluation (Wilkenfeld et al., 2010). Among these recent models, Watts' psychological theory of sociopolitical development (Watts et al., 1999; Watts, Williams, & Jagers, 2003) is receiving increasing empirical support, and well synthesizes some of the developmental processes included in traditional models of development.

Within the theory, sociopolitical development is defined as the evolving comprehension of the social, political, economic and other systemic influences that shape society and the individual status in it, along with the related process of development in knowledge, analytical abilities and emotional competencies beneath political engagement (Watts, Armstrong, Cartman, & Guessos, 2008). This definition, consistent with the more common operationalizations of civic engagement, underlines the multidimensionality of the construct, including civic attitudes, behaviours and competencies.

The theory of Watts and colleagues (1999, 2003) is centred on the construct of critical consciousness, which is seen as an antecedent of sociopolitical development. Critical consciousness represents a process through which an individual analyzes socially constructed values, norms and institutions in a critical way (Freire, 1990; Prilleltensky & Prilleltensky, 2006), and is thought to permeate each stage of sociopolitical development.

According to the theory, the influence of experiences on sociopolitical attitudes and behaviours is cumulative over time, and it occurs throughout five developmental stages. In the first

stage, called *acritical stage*, individuals are convinced that the differences in resources based on social status are minimal, and that people have complete control over their position in society. During the second stage, called *adaptive stage*, there is a realization that there may be a structural asymmetry in the distribution of resources; however, they tend to have a resigned attitude towards this asymmetry, lacking the belief that it's possible to mobilize in order to change it. The subsequent stage is defined *precritical* and is characterized by a growing concern about social inequalities, and a consequently less passive attitude toward the existing asymmetries. In the subsequent stage of socio-political development, the *critical stage*, individuals begin to feel the necessity to know more about social inequalities and start to recognize that through active involvement it's possible to change these injustices. Finally, in the fifth stage of socio-political development, named *liberation stage*, people begin to participate in civic and political life, thus stimulating their awareness of oppression and their motivation to work for changing situations of inequality (Watts et al., 1999).

In order to nurture critical consciousness and favour progression through these stages, Watts and colleagues (1999) developed a set of key questions, which allow people to reflect on inequalities in more concrete terms. For instance, during childhood and early adolescence, young people may be asked to explain why affluent children and adolescents have the opportunity to attend expensive dance classes, why others cannot. Once higher stages of sociopolitical development have been achieved, for young people it's useful to consider the reasons beneath systemic problems of injustice, such as gender or ethnic inequalities.

The theory of sociopolitical development (Watts et al., 1999, 2003) has been developed based on a liberation psychology perspective and drawing from cognitive psychological theory. In particular, in order to generate a theory of development in the sociopolitical domain, the authors conducted a series of interviews with African Americans, since they have historically been victims of oppression. Analysing the interviews, the researchers noticed that participating in a particular program promoted critical consciousness among young men. Moreover, they asked participants key questions in order to favour reflection and critical thinking about social issues, thus promoting the progression through the stages. The findings, although useful for a more precise definition of social analysis and worldview, did not allow the identification of specific factors contributing to the development of critical consciousness, and the nature of the association between critical awareness and civic action.

The conceptual model developed by Watts and colleagues (2008) to explain the processes facilitating sociopolitical development encompasses four main components: a worldview and analysis of society, a sense of agency, the awareness of the opportunity structure for action and

behaviour reflecting civic and political involvement. The central construct of the theory is represented by the individual understanding and analysis of society, that evolves from the simple idea that people always get what they deserve based on their own actions, to the recognition of social institutions impacting individuals' lives and the understanding of processes responsible for this influence. According to the theory, the higher the awareness and comprehension of social injustices, the greater the likelihood involved in civic action. The relationship between the awareness and understanding of social injustice and the decision to actually participate in changing these injustices depends on the individual's sense of agency and the structural opportunities for civic involvement. The theory posits that, when an individual has higher levels of agency and more structural opportunities for action, the association between social awareness and civic behaviour is stronger.

The empirical and theoretical work of Watts and colleagues is critical within the field of research examining adolescent civic engagement. In particular, although the empirical evidence supporting their model is still at an early stage, future studies based on its theoretical assumptions could help to elucidate the relation between the attitudinal component of civic engagement (civic responsibility in the present work, critical consciousness in the model) and civic behaviours. The model of sociopolitical development, indeed, has been elaborated in relation to civic activism in situations of oppression, but may usefully be applied to situations that most people have in common (such as contributing to improve one's own neighbourhood or participating in discussions to solve issues of the local community). The integration of its theoretical assumptions with the processes postulated in neighbourhood research may represent a potential advancement in enlightening the association between contextual characteristics and the development of civic attitudes, along with the relationships between different components of adolescent civic engagement.

To date, there has been little theoretical work specifically addressing the civic and political domains of development. The lack of well established theories in the field often results in studies that are not consistently informed by clear conceptual frameworks and theoretical assumptions. As a consequence, although studies on adolescent civic engagement have recently been on the rise, the difficulty of elaborating theoretically based research questions has hindered a fertile debate among scholars, as well as the application of empirical evidence for practice (Wilkenfeld et al., 2010). Additional work is needed in order to develop theoretical models explaining the development of civic engagement during adolescence. Since the current work focuses on examining the association between neighbourhood characteristics and adolescent civic engagement, from our perspective the first step is to create a theoretical ground that could constitute a basis for future studies. Considering

the theoretical work reviewed in the third and fourth chapter, a useful strategy to contribute to theory generation consists in the integration between theories developed in different fields:

- general theoretical frameworks (the ecological systems theory and the positive youth development framework), providing a comprehensive vision of individuals and development;
- models elaborated in the field of neighbourhood research (institutional resources, norms and collective efficacy, relationships and ties models), describing potential mechanisms through which the characteristics of the local community can impact different aspects of adolescent development;
- general theories in developmental science (social cognitive theory, theory of role taking, psychosocial theory), which provide theoretical foundations to understand how specific aspects of emotional, cognitive and social development may contribute to civic development;
- theoretical models specifically developed to understand civic development (theory of socio-political development), although they are still in an early stage of elaboration.

In addition, as we stated before, empirical research on adolescent civic engagement has been on the rise during the last decade; although the lack of shared theoretical models has made it difficult to integrate research findings, the results of recent studies can suggest important mechanisms to take into account in future theories.

#### ***4.4.5. “Giving back to one’s own community” and heterogeneous encounters: additional potential mechanisms for the promotion of civic engagement in adolescence***

As we stated above, the interest in civic engagement within developmental psychology is relatively recent, and the lack of well established theoretical models led some scholars to hypothesize processes influencing civic development based on existing models.

Flanagan and colleagues (2007), for example, drawing from the literature on adolescent affective ties to their communities, proposed a mechanism through which emotional bonds in the neighbourhood may increase youth motivation to work for the common good.

The authors built on the consideration that, in the youth development literature, adolescents’ well-being is generally associated with their affective ties in the local community: when young people perceive that, within their neighbourhood, there are people and institutions with which they are connected, they are more likely to report higher levels of well-being and competence (e.g., Pretty et al., 1996; Resnick et al., 1997). Generally, in these studies emotional bonds in the community are defined as young people’s view of the social relationships among people in the neighbourhood, that is, the extent to which residents have a sense of belonging to the community and their readiness to help each other. In some studies, in contrast, scholars measure more specifically adolescents’ personal ties to the community, and the degree to which they feel a sense of attachment and inclusion in the local community (Albanesi et al., 2007; Duke et al., 2009).

According to Flanagan and colleagues (2007), the relationships developed in the neighbourhood can be an important source of support for adolescents, who may develop a strong emotional bond, and a commitment to give back, to their local community, working to make it a better place (Albanesi et al., 2007; Brown et al., 2003; Flanagan et al., 2005, 2007). Affective ties to community members and, by extension, to the whole neighbourhood, may provide adolescents the motivation for contributing to community life. The social relationships with people in the neighbourhood, and a sense of place attachment, indeed, become an important part of young people's emerging identity, so that "contributing to the community becomes, simply, the right thing to do" (Flanagan et al., 2007, p. 152).

The same authors (Flanagan et al., 2005) pointed out another potential mechanism that may foster adolescent civic engagement. Consistently with the theory of role taking (Selman, 1980, 2003), they underlined the importance of heterogeneous encounters that youth can experience while participating in community service activities. Many community-based organizations, in fact, allow adolescents to interact with people in the community that young people would not naturally meet, thus offering the opportunity to come into contact with individuals who have very different backgrounds (for example, cultural, ethnic or socioeconomic). According to the authors, the possibility to interact with heterogeneous people contributes to undermine stereotypes, and developing views of others based on real people. This kind of experience increases social trust towards other people and represents a critical component of social capital and an antecedent of civic engagement, thus constituting a critical aspect of civic development.

A similar process may also occur during informal interaction in the neighbourhood, where young people may have the opportunity to meet people from different social, economic, religious or cultural backgrounds. Although people usually choose the neighbourhood where they live, and there can be a certain grade of homogeneity within neighbourhoods, people mostly interact based on geographical proximity rather than personal affinity. Thus, in the local community adolescents can meet individuals with whom they would not otherwise interact, come into contact with diverse opinions and points of view, and be facilitated in the understanding of a "generalized point of view" that might characterize the average member of the group (a critical competence for civic development, according to the theory of role taking; Selman, 1980, 2003).

Finally, according to our perspective, there is another pathway that may be responsible for the association between neighbourhood social connectedness and adolescent civic engagement. Having many personal ties with people in the neighbourhood, in fact, may foster adolescent confidence in their abilities to actively contribute to the common good. In the definition of perceived competence for civic action, Flanagan and colleagues (2007) include skills such as public speaking and

gathering a group of people for working together in the resolution of community issues; it is evident how having strong social ties in the neighbourhood may facilitate youth civic action, by making it easier for them to identify and interact with key people in the local community, or to get involved in civic actions together with the other neighbourhood residents. Although this mechanism, that we could name “concrete facilitation for civic actions”, may appear evident, to our knowledge there are no studies that have evaluated it empirically.

Although some empirical evidence supporting the mechanisms of “giving back” to the community and the importance of heterogeneous encounters does exist, further studies are needed in order to examine the role of emotional bonding and heterogeneous interactions in youth civic development.

Furthermore, future research should analyse in greater depth the association between adolescent personal ties with peers and adults in the neighbourhood and youth perceived competence for civic action, in order to understand how personal connectedness in the local community facilitates the development of civic competence.

#### **4.5. Towards an integrative model of civic development: How does neighbourhood social connectedness influence adolescent civic engagement?**

As we stated in this chapter, theory generation on civic development has been scant, although research on adolescent civic engagement has been on the rise in recent years. The lack of well established models addressing civic development has hindered productive debate in the field, making it difficult to integrate study results and the application of findings to intervention.

Despite the paucity of theoretical models specifically developed to explain which factors contribute to youth civic engagement, within psychology there are several theories that might be useful in understanding processes that encourage (or hinder) civic development. Integrating theoretical models from community and developmental psychology, we selected some of the processes that may be useful in the study of the association between neighbourhood context and civic development. In particular, summarizing the theoretical approaches reviewed in the third and the fourth chapter, it’s possible to identify three different categories of theories, depending on their level of specificity.

The first “level” of theories includes broad frameworks, which provide a general vision of individuals, their development, and principal factors affecting it. Among the general theoretical frameworks on human development available in the literature, we selected two approaches representing the basis to understanding how adolescents develop civic attitudes, competences and behaviours: the ecological systems theory (Bronfenbrenner, 1979) and the positive youth

development framework (Benson et al., 2004; Cummings, 2003; Larson, 2006, 2000; Leffert et al., 1998; Scales & Leffert, 1999).

The ecological systems theory emphasizes the impact of social contexts on human development and underlines the need to examine multiple systems that affect children and adolescents. Applying this framework to civic development, individuals learn and develop civic attitudes and behaviours as a result of multiple interacting influences over time (Bronfenbrenner, 1979, 2005). Indeed, besides the interaction between the individuals and their systems the contexts are also interdependent with each other, so that the impact on civic development derives from the direct influence of each system, together with the indirect effects of distal systems operating through more proximal systems.

The positive youth development framework includes civic engagement among the key features of a healthy development during adolescence, stressing the concept of “contribution” to family, community, and civil society (Lerner, 2004). The critical assumption of this theoretical framework defines youth as “resources to be developed” (Lerner et al., 2006; Roth & Brooks-Gunn, 2003), and maintains that preventing a problem does not guarantee adolescents the assets they need to thrive, because “problem free is not fully prepared” (Pittman et al., 2000). Moreover, emphasising the concept of *relative plasticity* of human development, this approach underlines that communities can provide young people with the resources they need to develop their civic attitudes and competencies, thus fostering critical features of positive development.

Besides these general frameworks underlining a strength-based vision of adolescents, and the role of multiple contexts in promoting (or hindering) youth civic engagement, theoretical models developed within the field of neighbourhood research can suggest more specific mechanisms influencing civic development. The norms and collective efficacy model (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009) is particularly relevant for the identification of potential processes through which neighbourhood characteristics may influence youth civic engagement, either directly or by influencing more proximal contexts. The assumptions of the model, indeed, can also be applied to the study of the association between neighbourhood connectedness and civic development. Living in a neighbourhood with high levels of social connectedness, where people look out for each other, adolescents may be socialized to prosocial norms and behaviours, and learning how to contribute to the well-being of the local community. Thus, in neighbourhoods where residents share norms of trust and reciprocity, a process of collective socialization transmits to youth the values and behaviours encouraged within the community, teaching them the importance of contributing to the common good.



Furthermore, the model posits that the influence of neighbourhood connectedness is transmitted, in part, by a more proximal context: the peer group. Applying this assumption to the association between neighbourhood connectedness and adolescent civic engagement, in highly cohesive neighbourhoods, where people are willing to work on behalf of the community, adolescents could be more likely to meet civically responsible peers. Similarly, as shown in several studies focusing on the role of non parental adults in adolescents' development (Buchanan & Bowen, 2008; Chen, Greenberger, Farruggia, Bush, & Dong, 2003; Moore, 2003; Paxton et al., 2006), high levels of social connectedness within the neighbourhood could make it more likely to come in contact with civically engaged adults, that is, positive role models who may promote positive development. The presence, within adolescents' social networks, of adults and peers believing in the importance of contributing to the well-being of the community, in turn, is thought to foster youth civic responsibility (Hart & Atkins, 2002; Pancer, Pratt, Hunsberger, & Alisat, 2007; Zaff et al., 2008).

Another important mechanism of influence suggested in neighbourhood research has to do with the personal relationships developed in the local community and the affective bonds that people develop toward a place. Several studies show a positive association between cohesive relationships among residents and the development of a sense of attachment to the local community: the more people perceive other residents' as being willing to help and support each other, the more they develop a strong emotional bond to the neighbourhood (Morrow, 2000; Whitlock, 2007). Caring for one's own community, in turn, represents one of the most important precursors of the development of a set of civic values focused on the idea that contributing to the well-being of the neighbourhood is a responsibility of each resident (Brown et al., 2003; Manzo & Perkins, 2006).

Theoretical models developed in neighbourhood research suggest several pathways through which the characteristics of the local community can impact adolescents' development, indicating potential relationships among contextual factors and individual outcomes. In order to understand in greater depth the mechanisms responsible for the association between neighbourhood features and youth civic engagement, we have to refer to a third level of theoretical models, identifying more specific processes of development.

The developmental theories described in the previous paragraph have been selected because they highlight some of the processes that explain how civic attitudes and competencies may be influenced by the characteristics of the local community. These models also support the idea that a sense of civic responsibility and the perceived competence for civic action may represent antecedents of civic behaviours.

The four models presented, indeed, postulate that the characteristics of the social contexts in which the individual is embedded (e.g., local community, peer groups, non parental adults)

influence adolescent levels of civic engagement. According to the social cognitive theory (Bandura, 1986), adolescents learn civic attitudes, skills and behaviours through interactions with other people, or observations of others' behaviour and the consequences associated with their actions. Thus, by interacting with peers and adults in the neighbourhood, adolescents may create and change their cognitive structures referring to societal functioning and their role in society, because they are exposed to new visions and opinions. Observational learning represents one of the possible mechanisms that can explain the association between neighbourhood social connectedness and adolescent civic engagement.

The theory of role taking (Selman, 1980, 2003) posits that perspective taking, that is, a coordinated understanding of the diverse perspectives of individuals, groups, and the society as a whole, represents the basis of civic engagement. The development of perspective taking is thought to be strongly related to social relationships, especially when young people interact with people from different backgrounds and perspectives (as often occurs in neighbourhood contexts or community-based activities). The ability to understand a generalized perspective that characterizes a group of people, in particular, is critical in order to understand which values and behaviours are encouraged in one's own neighbourhood and to decide to behave consistently with these norms. Similarly, according to the psychosocial theory (Erikson, 1968), social relationships are fundamental in influencing the process of identity formation, during which adolescents develop a worldview and a personal set of values, beginning to form their own ideas about their role in society.

The theory of sociopolitical development (Watts et al., 1999, 2003), while not explicitly addressing which factors promote civic development, points out that all the events and situations encouraging reflection on civic issues have the potential to foster civic engagement. Indeed, through reflecting on social issues, young people become aware of social inequalities and develop their motivation to work for changing asymmetries in society.

In addition, Flanagan and colleagues (2007) proposed a mechanism explaining the association between adolescent attachment to the neighbourhood and civic attitudes. Indeed, developing an emotional bond to the neighbourhood is thought to increase adolescents' interest to improving it and their motivation to give back to the community the support that they received.

Finally, these developmental theories suggest pathways through which different components of civic engagement may be related. In particular, consistently with Flanagan's notion (2007) of neighbourhood as a microcosm for public life, Selman's theory (1980, 2003) points out that perspective taking is initially developed in relation to other people, and then is generalized to the societal level. Thus, this developmental process suggests that youth may first develop a civic sense

of responsibility to their local community, and then generalize civic attitudes to society at large. Furthermore, the theory of role taking, as well as psychosocial and sociopolitical development theories, all agree that civic responsibility is a precursor of civic behaviours. Although civic participation can also reinforce civic values, a set of beliefs supporting the importance to contribute to the well-being of the community is thought to be critical to adolescents' decision to be actively involved in civic life.

As shown in the review of the theoretical models described in this chapter, the integration between community and developmental psychology theories can shed light on the processes influencing adolescent civic engagement. In the absence of well established theoretical models, therefore, integrating conceptual models elaborated in neighbourhood research with traditional developmental theories appears to be a promising strategy to provide the field of studies on civic engagement with a strong theoretical foundation.

## CHAPTER 5

### UNDERSTANDING THE ROLE OF THE NEIGHBOURHOOD IN INFLUENCING ADOLESCENT CIVIC ENGAGEMENT: PURPOSE OF THE CURRENT STUDY

The neighbourhood of residence is a critical context in adolescent lives, representing at the same time a source of risks for emotional and behavioural problems and a source of strength for positive development. Many of the people with whom adolescents interact daily, and the activities in which they participate, are often located in their immediate neighbourhood of residence. Thus, living in a neighbourhood characterized by structural and social disadvantage often exposes adolescents to contact with crime and delinquency, making it easier for them to get involved in risky behaviours (Jencks & Mayer, 1990; Leventhal & Brooks-Gunn, 2000, 2004; Leventhal et al., 2009). In the neighbourhood of residence, however, adolescents can also find several opportunities for positive development, creating supportive networks with peers and adults and getting involved in local organizations (Leffert et al., 1998; Pretty, 2002).

At the same time, the development of civic engagement is an important aspect of the identity formation process during adolescence (Erikson, 1985), involving an understanding of one's role and relationships to the broader society (Yates, 1999). The achievement of community awareness is important for adolescent personal development (Erikson, 1968; Lerner, 2004), when youths are developing their identity and begin to question how they are embedded into the society that goes beyond their family and friends.

The present work aims to link the field of neighbourhood research with studies on adolescent civic engagement, starting from the recognition of related gaps in the literature of the two fields. As stated in the previous chapter, the wellness promotive influence of neighbourhood resources has not been widely investigated, while studies on adolescent civic engagement have been focused on examining the individual correlates of civic development rather than contextual determinants. Given that recently these two tendencies have begun to change, with a growing interest in understanding the role of neighbourhood as an asset for adolescent positive development, and an increasing interest in the contextual correlates of civic development, the integration of the two fields of research may result in important theoretical and empirical advances.

Furthermore, scholars studying neighbourhood effects and researchers examining civic development are both advocating the need for a stronger theoretical basis, in order to better

understand the processes through which the local community influences adolescent well-being and the developmental pathways to civic attitudes, competencies and behaviours.

For these reasons, the primary purpose of the current study is to examine the association between neighbourhood features and different aspects of adolescent civic engagement: civic attitudes, competencies and behaviours.

In particular, based on the empirical and theoretical work conducted to date, the present research is divided into three interconnected studies.

Study 1, conducted with a qualitative methodology, arises from the complexity of defining and measuring the construct “neighbourhood”, and has the following specific aims:

- Investigating whether there is an administratively defined geographical unit which is adequate for the investigation of neighbourhood effects in the Italian context (more specifically, in the city of Padova);
- Detecting the neighbourhood structural and social features most relevant for adolescents’ well-being.

The results of this qualitative study have been used to develop a quantitative research examining the association between neighbourhood characteristics and adolescent civic engagement. In particular, in study 2 data collected from this study were employed to evaluate a theoretical model (in two different versions) linking neighbourhood social resources and adolescents’ civic engagement (local and global civic responsibility, civic competencies, civic behaviours), elaborated based on the literature on neighbourhood effects and civic development. In particular, the models have been evaluated with the following aims:

- Examining the association between neighbourhood social connectedness (neighbourhood intergenerational closure, neighbourhood trust and reciprocity, social relationship with neighbours and neighbourhood friends) and adolescents’ civic engagement, and the mediation effect of non-parental adults’ networks;
- Examining the association between neighbourhood social connectedness (neighbourhood intergenerational closure, neighbourhood trust and reciprocity, social relationship with neighbours and neighbourhood friends) and adolescents’ civic engagement, and the mediation effect of peer networks.

Finally, study 3 aims to investigate the association between neighbourhood structural characteristics and neighbourhood social connectedness. This study, based on the theoretical assumptions of the institutional resources model (Leventhal & Brooks-Gunn, 2000), has the following goals:

- Evaluating the suitability of the role of neighbourhood structural features in the Italian context, where the concentration of disadvantage is not as pronounced as in the U. S., in order to determine whether they have an impact on neighbourhood social connectedness;

- Identifying which neighbourhood structural and institutional features (perceived wealth, ethnic composition, population density, physical and social disorder, perceived opportunities for activities and meeting places) are associated with the perception of neighbourhood social connectedness among adolescents.

The three studies composing the present work have arisen from the main literature gaps identified in the research on neighbourhood effects and civic development during adolescence. Starting from the theoretical and methodological strains that characterize the field of neighbourhood research, a qualitative study guided the identification of the more adequate geographical unit of analysis and the most relevant neighbourhood features for adolescents' well-being in the Italian context. Then, theoretical and empirical work coming from different fields (community and developmental psychology, in particular the research on neighbourhood effects and the literature on civic development) and general theoretical frameworks (ecological systems theory, positive youth development framework) have been integrated in order to understand in greater depth the processes linking neighbourhood social connectedness and adolescent civic engagement, and to examine the structural correlates of neighbourhood social connectedness.

The current work fits in with the recent interest in studying neighbourhood as a resource for adolescent positive development, and the increasing attention on the contextual correlates of youth civic engagement. A better understanding of neighbourhood processes that favour or hinder adolescent civic development is critical in order to develop community-based interventions promoting the attainment of civic attitudes, competencies and behaviours.

## CHAPTER 6

### NEIGHBOURHOOD DEFINITION AND MEASUREMENT: IDENTIFYING A UNIT OF ANALYSIS AND STRUCTURAL AND SOCIAL FEATURES RELEVANT IN ADOLESCENCE

*“Vorrei incontrare le pietre, le strade, gli usci/  
e i ciuffi di parietaria attaccati ai muri/  
le strisce delle lumache nei loro gusci/  
capire tutti gli sguardi dietro agli scuri...”*

*- Francesco Guccini (“Vorrei”) -*

#### 6.1. Introduction

As stated in chapter 1, neighbourhood is a multidimensional construct, including a geographical unit and a subjective experience of the environment within this unit; as a consequence, its operationalization for research and intervention purposes is particularly complex (Nicotera, 2007).

Methodological difficulties in defining and measuring neighbourhood derives from the nature of the construct itself, for which an *a priori* operationalization in terms of geographical boundaries and relevant characteristics to measure is not possible. Indeed, depending on the research aims, the neighbourhood can be defined using administrative boundaries or residents’ subjective perceptions, and the neighbourhood features under investigation may be very different: from structural characteristics such as neighbourhood socioeconomic status to social processes such as neighbourhood cohesion. For this reason, since the origins of the field, the construct *neighbourhood* has been defined and operationalized in a myriad of ways, both in terms of its geographical boundaries and regarding the choice of the characteristics to be investigated.

Given that our research (study 2 and 3) aims to examine the association between neighbourhood context and adolescents’ development in the Italian context, a second set of methodological issues derives from the specificity of the study. First of all, the fact that most of the studies in the field have been conducted in North America leads up to evaluate the suitability of the methodology when used in different national contexts, both in terms of the geographical unit of analysis and neighbourhood features to be investigated. Moreover, the methodology in the field has been developed with adult populations, so that instruments and procedures, as well as the neighbourhood features to be examined, may need to be adapted to the adolescents’ developmental stage.

### ***6.1.1. Neighbourhood boundaries: The choice of a geographical unit of analysis***

In general, the literature recognizes that within a neighbourhood, residents share both a geographically limited area as well as a set of circumstances within this area, including social relationships (relatives and friends), functional connections (e.g. services) and cultural roots, such as religion and traditions (Chaskin, 1995; Gephart, 1997; Wachs, 1999). Thus, a critical aspect to consider when studying neighbourhood context regards the geographical unit of analysis under investigation, that is, the identification of neighbourhood boundaries.

As described in chapter 1, the most frequent approach in studies conducted in the United States is to define neighbourhoods using census tracts, geographical units identified with the local communities in order to reflect the main physical and social features, such as major streets or ethnic divisions. The census tracts include approximately 3,000-8,000 residents, and represent the most common geographical unit employed in neighbourhood research because data collected by the U.S. Decennial Census are quite easy to obtain. In some cases, based on research aims, researchers employ larger geographical units, such as the zip codes, the census blocks or the neighbourhood clusters (e.g., Brody et al., 2001). In other studies, the street-block is used to define the neighbourhood; this represents the smallest geographical unit available to identify a specific area, including the two sides of the street where an individual lives (e.g., Perkins et al., 2009).

Together with census information, other bureaucratically defined areas are available and can be used to circumscribe the geographical units under investigation, such as school, health and police districts. Finally, researchers employing an ethnographic approach underline that residents often perceive boundaries in a different way, thus relying on participant reports without specifying neighbourhood boundaries (Korbin & Coulton, 1997; Lauristen, 1994). In any case, residents' rating of neighbourhood boundaries generally tend to approximate administrative units (Coulton et al., 2001; Sampson, 1997).

Similar sources of information are employed in studies conducted all around the world, although some adaptations have to be made based on the characteristics of the national context. In particular, while in the United States the availability of census tracts, with respective census information, makes it easy to standardize the methodology employed in neighbourhood research, in other countries, a comparable, standard unit of analysis is not always available. National censuses, in fact, vary from country to country in terms of the type of data they contain, geographical coverage, and methodology used, so that geographical units defined using census information are sometimes difficult to compare across countries.

In architecture, the neighbourhood is defined as a group of buildings and infrastructures constituting the minimal unit of urbanization. In modern urbanism, the neighbourhood identifies a



particular area of a city, mostly used for a particular purpose, and thus equipped with all the services needed for those purposes. In a residential neighbourhood, for example, there should be, in addition to houses, commercial activities, schools, sport facilities, squares and so on.

Most importantly, in modern cities the neighbourhood also represents an administrative entity, a district of decentralization with offices and councils where citizens can participate in the political and civic life of the community. For this reason, consistent with the definitions of neighbourhood given by social scientists, the neighbourhood can also be considered a community.

In the Italian contexts, administrative neighbourhoods with local councils are generally rather extended, and they divide the cities into 5 to 10 geographical units on average. Depending on the size and population of a city, the dimension of an administrative neighbourhood can widely vary. In a mid-sized Italian city like Padova, for instance, the population within the six neighbourhoods vary from 26,000 to 48,000 inhabitants, thus approximating the American census blocks.

Besides these administrative units, equipped with offices and councils through which citizens participate in local politics, within the Italian context there are also smaller geographical units that residents may recognize as neighbourhoods (sometimes called “*rione*”, the Italian term for “*district*”). These smaller neighbourhoods are generally limited by physical features such as major streets, rivers or bridges; moreover, they usually share cultural, historical or religious roots. The presence of religious communities in Italy is particularly relevant for the identification of these neighbourhoods, which most of the times have their centre in the local parish, where the main events of the local community take place.

Because of their dimension, these small districts may have a stronger meaning for their residents, compared to the larger neighbourhoods. Indeed, these small communities represent the place where people get to know each other and interact on a daily basis, sometimes organizing local events or discussing community issues together. Although it's difficult to estimate the average dimension of these small districts, because there is not always an agreement regarding their administrative boundaries and official demographic data are not always available, in an Italian mid-sized city like Padova, districts include approximately 6,000-10,000 residents. For this reason, Italian districts are the geographical unit of analysis that best approximate the U.S. census tracts.

Among the Italian studies that have examined neighbourhood context, different methodologies have been employed to define and study neighbourhoods. The most commonly employed strategy is to leave participants free to define their own neighbourhood, without the specification of neighbourhood boundaries, thus measuring the characteristics of the local community only through individual perceptions (Albanesi et al., 2007; Dallago et al., 2009; Prezza & Pacilli, 2007; Vieno et al., 2010; Vieno et al., 2005). In these studies, participants are not sampled

based on neighbourhood or district of residence. The predominance of this approach within Italian studies investigating neighbourhood context may be due to the lack of a standard geographical unit equivalent to the U.S. census tracts.

Other studies conducted in the Italian context have used a different methodology. In the work of Tartaglia (2006), for instance, participants were selected based on city districts, in order to include residents from throughout the city, but without specifying the neighbourhoods' boundaries. In other studies with adult populations, specific city districts have been selected in order to compare areas with different characteristics (e.g., historical centres and working class suburbs) (Bonaiuto, Fornara, & Bonnes, 2006; Fornara, Bonaiuto, & Bonnes, 2010; Prezza, Amici, Roberti, & Tedeschi, 2001). In a study conducted by Bonaiuto et al. (1999), in particular, 20 districts were selected in order to represent the maximum variety in terms of architectonic and town planning features, population density, and geographical location within the city.

Given the complexity of defining the neighbourhood in terms of geographical boundaries, characterizing the literature on neighbourhood effects, especially when carried out in contexts where census tracts are not available (e.g., the Italian context), the first aim of this study is to identify the most adequate unit of analysis for studying neighbourhood effects in the city of Padova; in particular, the aim of the study is to evaluate whether there are administrative defined geographical units which adolescents conceive as their neighbourhoods; this way it will be possible to understand how early and middle adolescents residing in Padova conceptualize their neighbourhood of residence in terms of geographical boundaries.

### ***6.1.2. Neighbourhood characteristics: Identifying the most relevant features to measure***

Once the neighbourhood is conceptualized in terms of geographical area, in order to evaluate the neighbourhood influence on adolescent development, researchers have to decide which neighbourhood characteristics to measure, based on theoretical models linking these features to youth well-being.

As already stated (Nicotera, 2007), the literature in the field recognizes that the construct of the neighbourhood includes, besides a geographically delimited area, a subjective experience of the environment within this unit. As a consequence, the operationalization of the construct for research and intervention purposes is particularly complex: indeed, the variables employed for measuring neighbourhood have the difficult task of representing the local community in terms of both objective environment and subjective experience.

As described in chapter 1, when defining neighbourhood dimensions, a critical distinction to make is that between neighbourhood structures and neighbourhood social processes (Leventhal et al., 2009). More specifically, different categories of neighbourhood features can be measured to

operationalize the local community: neighbourhood structure, comprising social and economic composition of the population and measured through indicators such as median income and ethnic composition of the area (Jencks & Mayer, 1990; Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009); neighbourhood physical composition and social disorder, which refers to aspects such as the housing condition, the presence of abandoned trash and graffiti, public drinking and drug dealing (Perkins & Taylor, 1996; Perkins et al., 1992; Ross & Jang, 2000; Sampson & Raudenbush, 1999); neighbourhood institutional resources, including the quantity and the quality of social and health services, schools, recreational programs and community centres within the local community (Leventhal & Brooks-Gunn, 2000); neighbourhood social connectedness, that is, the quality and the quantity of social relationships among residents in a neighbourhood (for which several theoretical constructs and measures, mostly overlapping, have been developed, such as social capital, social cohesion, collective efficacy).

Historically, studies investigating neighbourhood effects have been focused on structural features, measured employing census data, because of the need to understand the potential consequences of living in highly disadvantaged neighbourhoods. The level of social connectedness among the residents within a neighbourhood, on the other hand, is an aspect investigated by more recent research in the field of neighbourhood studies (O'Campo et al., 2010). As stated before, the major focus on neighbourhood structure, along with the use of multiple constructs and measures for studying neighbourhood social connectedness, have made it difficult to accumulate knowledge on the processes linking the social characteristics of the local community to adolescent development.

The situation is even more complex when conducting studies outside the U.S., in countries where the concentration of structural disadvantage is not so pronounced, and with adolescent populations; research methodology in neighbourhood studies has, in fact, been mostly developed with adult populations.

In contexts where structural disadvantage is less concentrated in specific areas and more spread out, such as the Italian context (Vieno et al., 2005), methodological problems could arise when trying to differentiate neighbourhoods on the basis of structural characteristics. Indeed, when the concentration of disadvantage is not pronounced the variability in structural features across neighbourhoods may not be sufficient to study the effect of neighbourhood structure. As a consequence, in these less-disadvantaged contexts the role of social connectedness, institutional resources, physical and social disorder may be more relevant compared to communities where the structural disadvantage varies widely across neighbourhoods. Moreover, in studies conducted in less structurally disadvantaged contexts, other features that are not usually examined in neighbourhood research could be important.

Finally, the fact that most of the studies on neighbourhood and adolescents' well-being have derived their methodology from research carried out with adult populations (Dallago et al., 2009), represents another limitation of the field. During adolescence, in fact, the aspects of neighbourhood life that are important for young people could be quite different than those considered salient during adulthood (Bronfenbrenner, 1979, 1989). When adolescents are asked to speak about their neighbourhood, they name aspects such as places to socialize and have fun, having friends in the neighbourhood, perceived social support, and safety (Chipuer et al., 1999).

Given the complexity of identifying neighbourhood features impacting residents' well-being, especially when examining contexts where the structural disadvantage is not highly concentrated in specific areas and when studying adolescent populations, the second aim of the current work is to identify key neighbourhood features relevant to adolescents' well-being in the Italian context.

Both the identification of an adequate unit of analysis to define the neighbourhood area, and the definition of key neighbourhood features have been utilized to project a quantitative research investigating the association between the characteristics of the local community and civic engagement during adolescence (study 2 and 3).

## **6.2. METHODS**

### ***6.2.1. Participants***

Participants were 49 early and middle adolescents (23 female, 26 male) aged between 11 and 15 years old (18 sixth graders, 17 eighth graders, and 14 tenth graders; mean age 12.78, SD=.89). Considering the explorative nature of the study, participants were not randomly selected; researchers ensured that two high schools with different curricula were selected (one vocational and one non-vocational) and that they were schools located in different areas of Padova.

Padova is a mid-sized city situated within the Veneto region (North-East of Italy) with approximately 210,000 inhabitants. The city of Padova was chosen for investigating neighbourhood context mainly because of its medium size, due to which it has some of the characteristics of a city, and other features that makes it similar to a small town.

### ***6.2.2. Measures and procedures***

School principals were contacted to present the aims of the study; then, students were asked to be involved in a study on their level of satisfaction with their neighbourhood of residence. For the students who agreed to participate in the research (the totality of the students in the four classrooms selected), parental written consent was obtained.

Participants were interviewed individually during school hours in a private room (the school library or the professors' room); all the interviews were audio-taped and lasted approximately 20-30 minutes.

Students responded to a semi-structured interview comprising three main questions: (1) "In which neighbourhood of Padova do you live?"; (2) "What are the main positive aspects, the strengths of the neighbourhood where you live? What do you mostly like about living in your neighbourhood?"; (3) "What are the main negative aspects, the weaknesses of the neighbourhood where you live? What don't you like about living in your neighbourhood? How could your neighbourhood of residence be improved?". Students were free to describe the most relevant aspects from their points of view, without being guided in the identification of neighbourhood features. When asking participants about their neighbourhood of residence, it was not better specified what the term "neighbourhood" stood for, in order to understand which meaning the term had for them. Only in a few cases, when participants had some difficulties in understanding the first question, did the interviewer ask them if it was possible to identify their neighbourhood with a name (thus facilitating the response). Regarding the second and the third questions, only when participants had some difficulties in identifying neighbourhood positive and negative aspects, did the researcher suggest to them to think about places and people living in their neighbourhood.

### ***6.2.3. Qualitative analysis***

Interviews were transcribed verbatim and these transcripts were used for the qualitative analyses which have been conducted with the software Atlas-ti. The themes emerged from the interviews have been coded by two independent coders, using the sentence as the unit of analysis (Strauss & Corbin, 1990). In order to adjust for differences in students' narrative styles (such as the tendency to describe the same ideas in several ways), when a participant used several sentences referring to the same theme, those phrases were coded in the same narrative unit.

In the first phase of the coding process each coder developed a set of codes that have been used to categorize descriptive themes of all the participants. These initial set of codes, created by the two coders independently, were subsequently discussed and integrated into a comprehensive list of coding categories (Miles & Huberman, 1994). Then, researchers discussed the meaning of each code, the criteria to decide when a particular response should be included in a particular coding category, and the appropriateness of unifying some overlapping codes. Subsequently, the two initial set of codes resulted in a shared, non-overlapping set of coding categories.

Within the coding process, any sentence that coders included in the same coding categories was defined as an agreement, while disagreement was defined as any case in which researchers assigned different codes to the same sentence, or when one of the two coders failed to code a

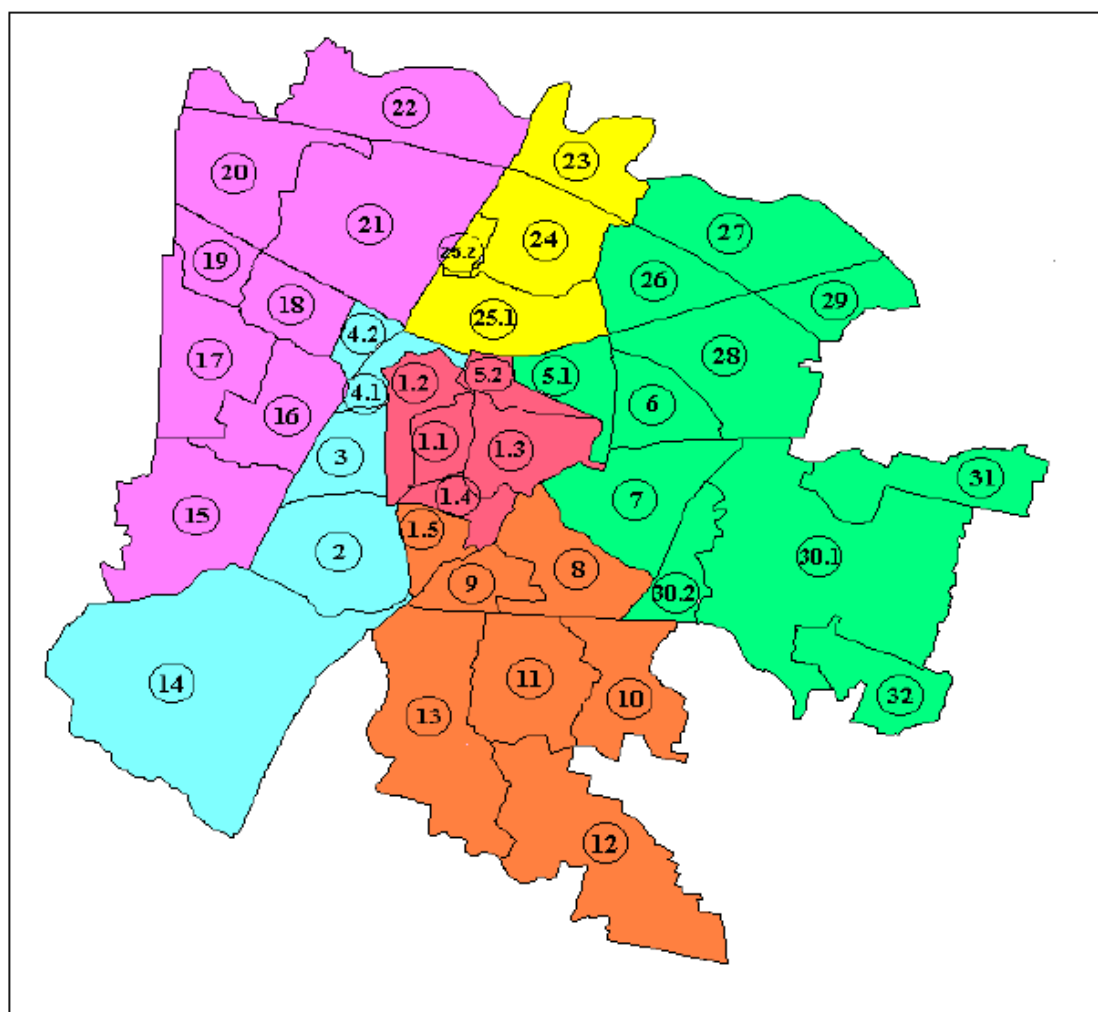
particular narrative passage. An inter-rater reliability analysis using the Kappa statistic (Landis & Koch, 1977) was performed to determine consistency among raters, using the statistical package SPSS (17.0). The inter-rater reliability for the current study was found to be  $K = .99$  ( $p < .001$ ), 95% CI (0.98, 1.00).

### **6.3. Results**

#### ***6.3.1. Identification of the geographical unit of analysis to define the neighbourhood***

The first aim of the current study was to identify the most adequate unit of analysis to define neighbourhood boundaries within an Italian city (Padova) during adolescence.

When participants were asked to identify their neighbourhood of residence, all of them (except for 4 participants who were not living in the city of Padova and were thus excluded from the analyses in this first phase) named the “districts” of the city (e.g., Arcella, Guizza, Mortise, Ponte di Brenta, Salboro, San Bellino), 40 administrative units that represent a further subdivision of the six bigger neighbourhoods of the city, represented in Figure 4. These small neighbourhoods, called “urban units”, are limited by physical features that constitute their boundaries, and they are partially overlapping with the areas where the local parishes are located. In the city of Padova, the average population residing in the urban units is 5,323 (ranging from 273 to 15,230), thus approximating the average population of the U.S. Census tracts.



QUARTIERI E UNITA' URBANE DI PADOVA					
Quartieri	Unità Urbane	Quartieri	Unità Urbane	Quartieri	Unità Urbane
<b>Centro</b>	1.1	Piazze	<b>Sud-Est</b>	1.5	Città Giardino
	1.2	Savonarola		8	San' Osvaldo
	1.3	Santo - Portello		9	Madonna Pellegrina
	1.4	Prato della Valle		10	Voltabarozzo
	5.2	Stazione Ferroviaria		11	SS. Crocefisso
<b>Nord</b>	23	Pontevigodarzere	12	Salboro	
	24	San Carlo	13	Guizza	
	25.1	Arcella	<b>Sud-Ovest</b>	2	Sacra Famiglia
25.2	San Bellino	3		San Giuseppe	
<b>Est</b>	5.1	Fiera	4.1	Porta Trento Sud	
	6	Stanga	4.2	Porta Trento Nord	
	7	Forcellini	14	Mandria	
	26	Mortise	<b>Ovest</b>	15	Brusegana
	27	Torre		16	Cave
	28	San Lazzaro		17	Brentelle
	29	Ponte di Brenta		18	San'Ignazio
	30.1	Zona Industriale		19	Montà
	30.2	Isola di Terranegra		20	Ponterotto
	31	Camin		21	Sacro Cuore
	32	Granze		22	Altichiero

Figure 4. Neighbourhoods (quartieri) and urban units (unità urbane) of Padova.

### ***6.3.2. Identification of key neighbourhood features relevant for adolescents' well-being in the city of Padova***

The second aim of the current study was to identify salient neighbourhood features from early and middle adolescents' points of view in an Italian city. For this reason, participants were asked to describe the positive and negative aspects of residing in their neighbourhoods.

Twenty-eight categories, comprising the themes that emerged during the content analysis, were identified. These categories included the characteristics of the local community mentioned by participants when describing the positive and negative aspects of living in their neighbourhoods. The coding categories were further reduced into 4 overarching categories of neighbourhood features: (1) positive social characteristics; (2) negative social characteristics; (3) positive structural and institutional characteristics; (4) negative structural and institutional characteristics. The elaboration of these overarching categories was based on the main distinction utilized in the neighbourhood literature, differentiating between neighbourhood structures and social processes (Leventhal et al., 2009). Although more specific categories can be used (structural characteristics; physical composition and social disorder; institutional resources; social connectedness, see chapter 1), for the purposes of clarity, in the qualitative analyses we utilized this broader categorization. In particular, we included in the neighbourhood social characteristics (positive and negative) all the aspects referring to social relationships and interactions among residents within the local community; the neighbourhood structural and institutional characteristics (positive and negative) included structural features, physical composition and social disorder, and institutional resources.

In order to identify the most relevant neighbourhood features from adolescents' point of view, the frequencies of quotes pertaining to the different coding categories were calculated. The coding categories are described below, along with exemplar quotes from the transcripts.

With regards to *neighbourhood social characteristics*, six codes were created to synthesise the positive aspects of the local communities described by adolescents, whereas seven codes include the quotes referring to the negative aspects of the neighbourhood.



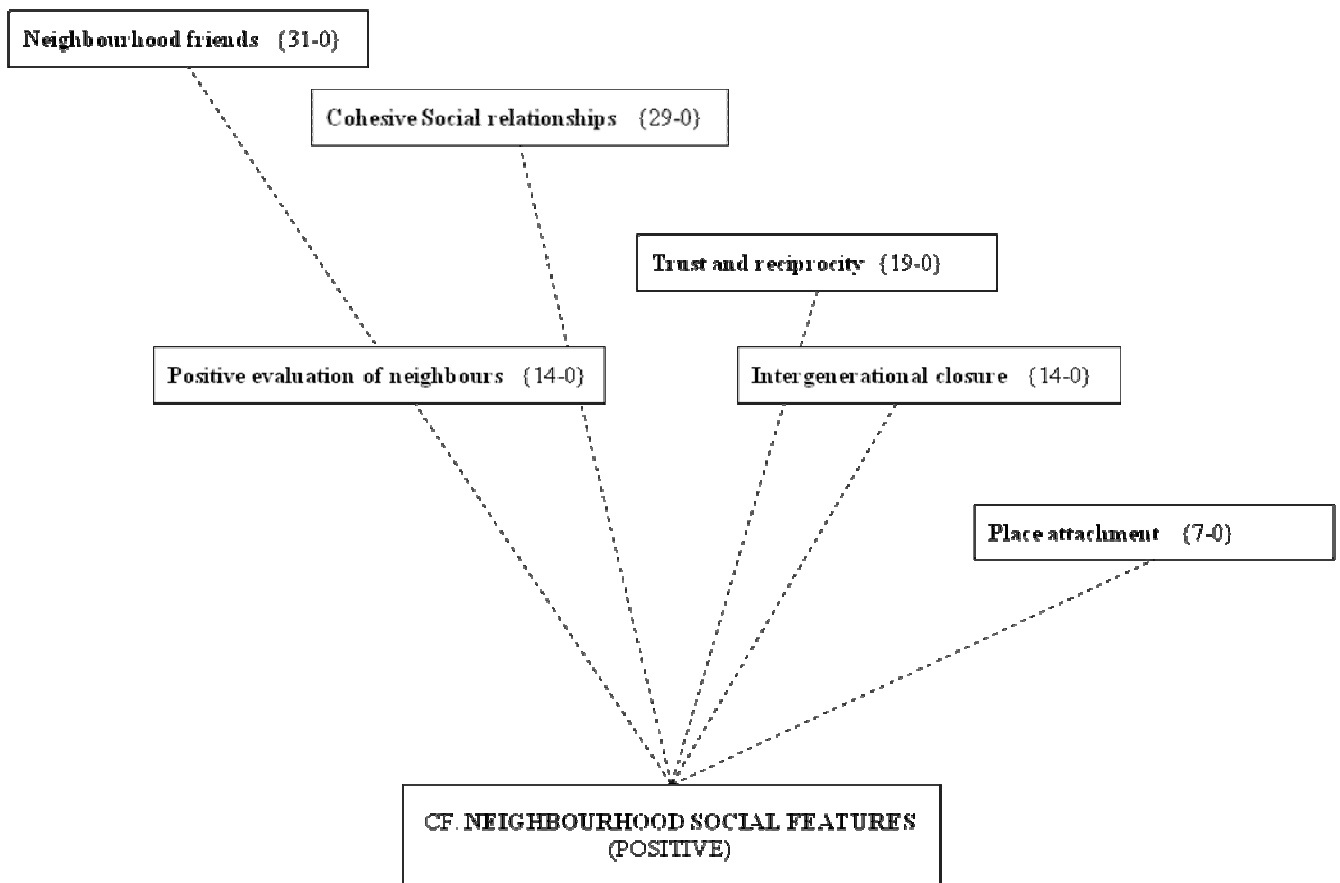


Figure 5. Coding categories pertaining to the neighbourhood social features (positive) identified in the qualitative analysis.

Within the strengths identified by participants (Figure 5), the coding category including the highest frequency of quotes was called “neighbourhood friends” (31 quotes). When participants were asked to describe the positive aspects of living in their neighbourhood, those who talked about social relationships most frequently named the closeness to their friends’ homes, and the consequent opportunity to meet them often and to spend time together. According to participants, having friends living close to them makes it easy to be involved in several activities together, such as playing, doing homework or simply chatting. When talking about friends in their neighbourhood, the young people interviewed pointed out that the ease of spending time with their friends, encouraged by geographical proximity, facilitates the creation of social ties among peers. One of the participants, for example, stated:

“There are many young people of my same age who I know pretty well, with whom I usually play or talk...here there are my friends, so, I can simply ring their bell and they are usually willing to come with me and do something together”.

Having friends living in the same neighbourhood of residence was the aspect that was most frequently named by adolescents' when describing the strengths of their local community in terms of social relationships. Narrative units pertaining to this code, in fact, constitute 27.2% of quotes describing the positive social characteristics of the neighbourhood, and 7.9% of all the quotes utilized by adolescents to describe their local community.

The second aspect of the neighbourhood frequently named by participants, strongly connected to the previous one, refers to their personal connectedness with other residents (29 quotes). In this coding category, called "cohesive social relationships" with neighbours, all the quotes referring to the presence of good relationships between the young people and other people living in the neighbourhood were included. From the adolescents' point of view, knowing many people in the neighbourhood, having positive interactions and cohesive relationships with other residents, represents one of the main strengths of their local community. Describing this aspect, for instance, one of the adolescents interviewed stated:

"There are many people that I know, so that when going for a walk I say hello, and sometimes I stop talking...people living in my same apartment block, for example, or people living in surrounding buildings. I like knowing a lot of people in my neighbourhood, saying hello...I wouldn't like to pass them by without saying hello, not knowing my neighbours".

In the description of the positive aspects of their neighbourhood, adolescents' personal connectedness with neighbours had a place of relevance. Sentences included in this code, in fact, constitute 25.4% of quotes describing the social strength of the neighbourhood and 7.4% of all the quotes depicting the local community.

Another feature of neighbourhood social organization that adolescents frequently named was the presence of relationships characterized by "trust and reciprocity" among residents (19 quotes), that is, the willingness to help each other. They talked about very concrete helping behaviours ("we have some problems with our house, because sometimes the rain comes inside, and our neighbours come to check and they fix it...everyone does a different job, so that if we need something..."; "sometimes we help each other in doing homework"), but they also described forms of emotional support consisting in discussing and solving problems together ("if our neighbours have a problem we talk about it together"). Furthermore, some of the quotes suggested a sense of trust that, in case of need, in the local community people willing to help can be found ("if I needed something, there would be people to call on"). Although named with a lower frequency compared to the first two coding categories, the availability to support each other represented another important neighbourhood feature from adolescents' point of view (16.6% of the quotes about *positive social characteristics of the neighbourhood* and 4.9% of all the quotes on neighbourhood characteristics).

When describing the positive aspects of living in their neighbourhoods, adolescents referred to other relational features of the local community, such as the “positive evaluation of neighbours” (14 quotes). In particular, they reported appreciating the people living in their neighbourhood, underlining that they are kind, likeable, and open-minded (“I like this place because there are people who let you think and say whatever you want, without a rigid scheme of what you have to do”). Adolescents also reported valuing the “intergenerational closure” (14 quotes) characterizing their neighbourhoods, that is, the level of social cohesion between people of different ages. One youth, for instance, stated: “If I needed something, I could ask a lot of people, not only of my age, but also older people, such as my parents’ friends”. Finally, among the relational aspects identified as a strength of the neighbourhood, participants reported a sense of “place attachment” (7 quotes) to their local community, an emotional bond that links them to the place where they were born and grew up (“I was born here, so, to me, this is my neighbourhood, and when I go to other places, I think that Guizza is better...maybe it’s not great, but it’s my place and I like it”). Although these social characteristics of the neighbourhood have been less frequently named during the interviews, they still represent salient features that young people named when asked to describe their neighbourhood.

Looking at the negative aspects pertaining to the social connectedness in the neighbourhood, it’s interesting to note that the most frequently named characteristics are represented by the lack or the paucity of the most salient neighbourhood strengths (Figure 6).

More specifically, the “weakness of social relationships” among residents and between adolescents and other residents, along with a “negative evaluation of the neighbours” (e.g., intolerant, gossipy, loud), were the social aspects most frequently described by adolescents among the negative characteristics of their neighbourhood (11 quotes for each category). Consistently with the neighbourhood strengths identified by participants, the “lack of friends in the neighbourhood” of residence was another aspect that adolescents reported as a deficit of their communities (9 quotes). Indeed, the lack or weakness of social relationships with peers in their own neighbourhoods was considered as an obstacle to having fun with friends, hanging out and sharing activities with them. The “lack of trust and reciprocity”, that is, the tendency to be individualistic and not willing to contribute to the common good, was also mentioned among the negative characteristics of the neighbourhood, although the frequency of quotes included in this coding category was low (3 quotes).

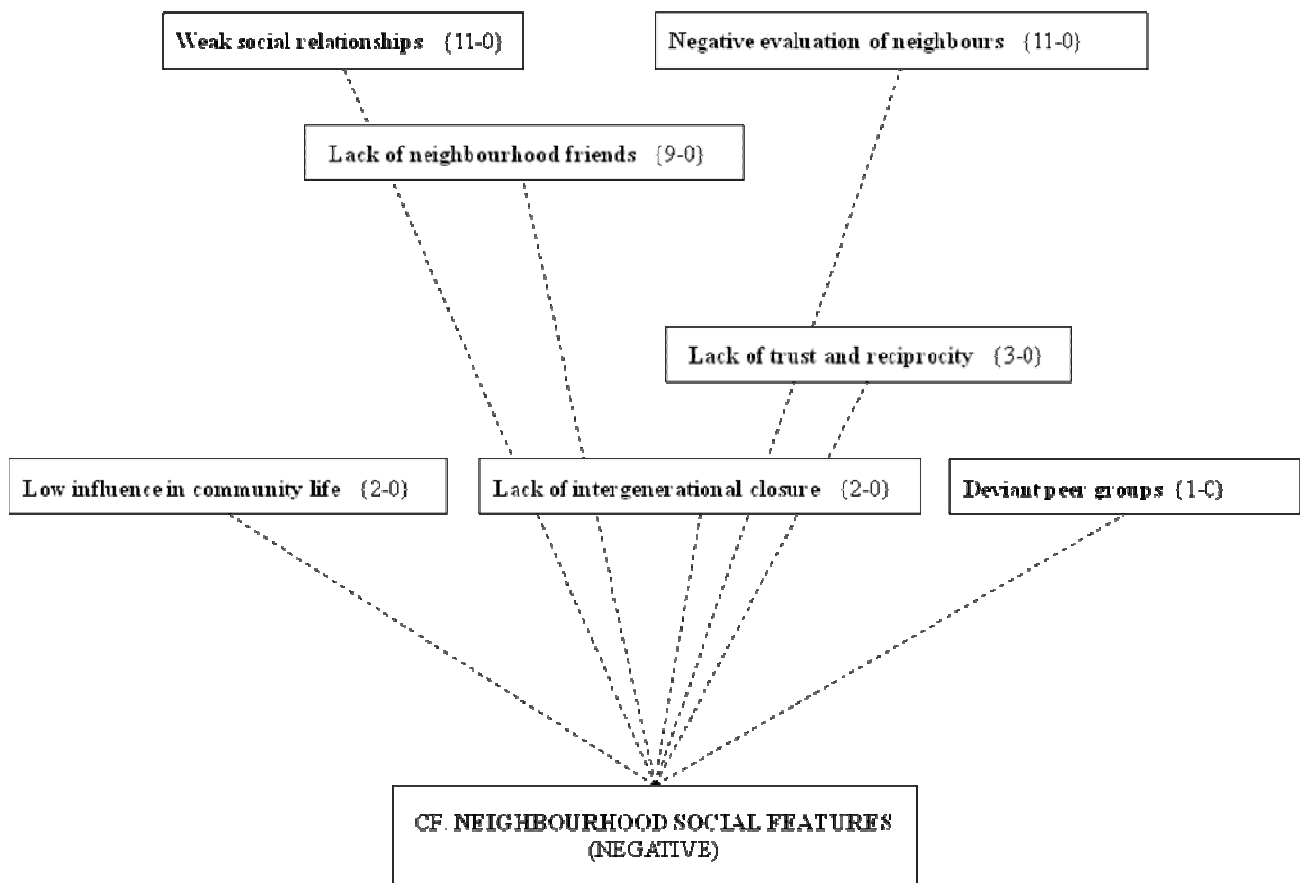


Figure 6. Coding categories pertaining to the neighbourhood social features (negative) identified in the qualitative analysis.

Finally, adolescents interviewed defined as deficits of their local community the perception of having “low influence in community life” (a lack of power in relation to the organization of events, and in decisions regarding the well-being of their local community), the “lack of intergenerational closure”, and the presence of “deviant peer groups”; however, in these coding categories just a few narrative units were included (respectively, 2, 2, and 1 quotes).

In relation to *neighbourhood structural and institutional characteristics*, eight codes have been created including the positive aspects of the local communities from adolescents’ point of view; similarly, eight codes synthesised the quotes referring to the negative aspects of the neighbourhood.

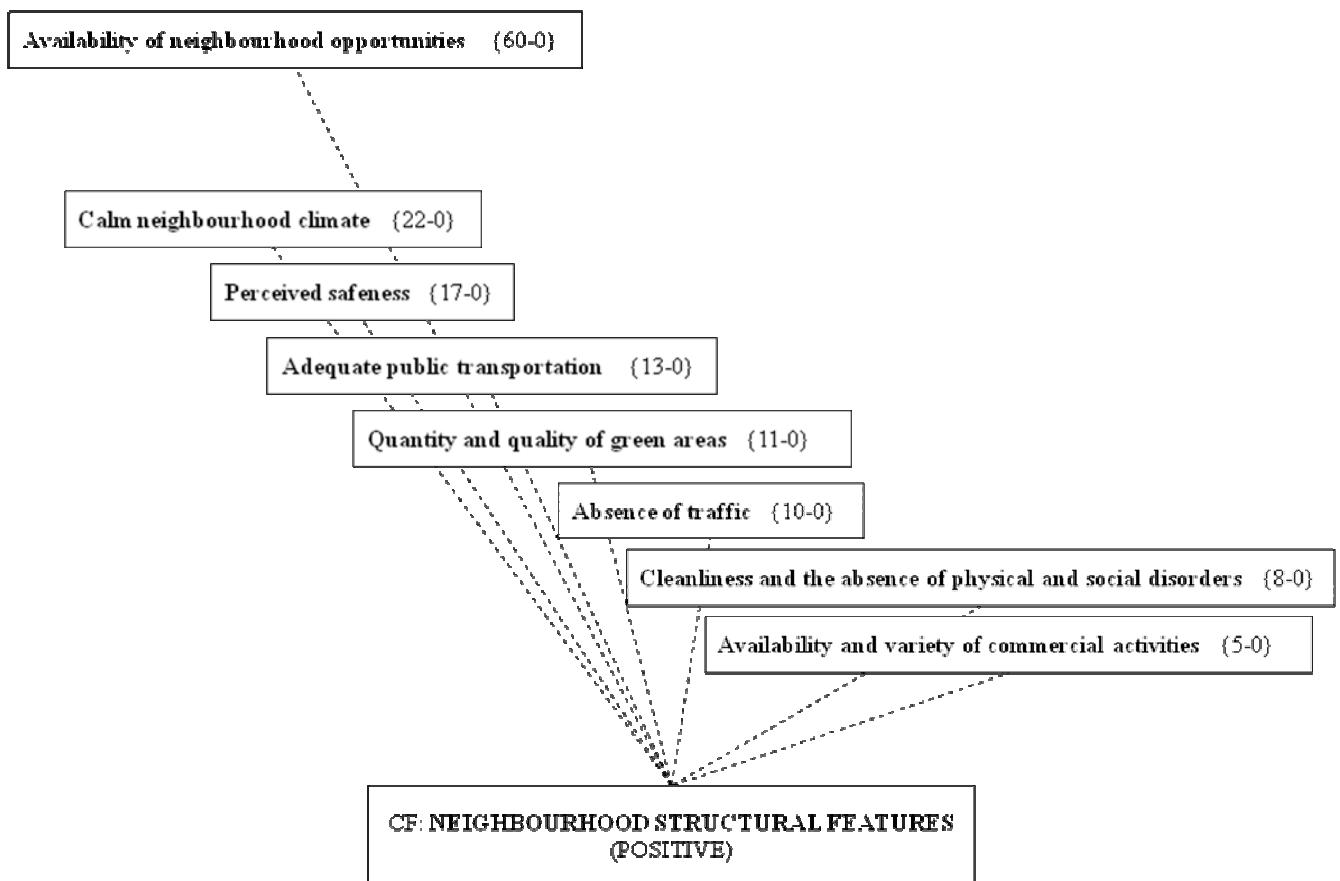


Figure 7. Coding categories pertaining to the neighbourhood structural features (positive) identified in the qualitative analysis.

As depicted in Figure 7, among the strengths related to the neighbourhood structural and institutional features, the coding category including the highest number of quotes referred to the availability of “neighbourhood opportunities” for activities and meeting places (60 quotes). From the adolescents’ point of view, the presence of places for meeting their friends and spending time together, such as parks, soccer fields, bars or community centres, was the most salient feature to consider in the evaluation of their neighbourhood. One of the young people interviewed, for instance, described the importance of meeting places with these words:

“There are many places where we can meet our friends, for example there is a little park where we meet, especially during summer, with the same friends who live nearby...we get together and have fun there, instead of staying at home”.

The availability of places where hanging out with their friends, for playing or simply chatting, was the most frequently named feature when describing the strengths of the local community in terms of structural characteristics. Narrative units pertaining to this coding category, in fact,

constitute 41.1% of quotes describing the positive structural characteristics of the neighbourhoods, and 15.4% of all the quotes describing the local communities.

Two other features that adolescents described as strengths of their neighbourhoods were the perception of a “calm climate” (22 quotes) and a sense of “safeness” (17 quotes). The former refers to youth perception of living in a calm, peaceful neighbourhood, characterized by a lack of noisiness, confusion and problems among people (“it’s a quiet neighbourhood, I’m happy not to live in a neighbourhood which is too...eventful, messed up”). The second aspect is strictly related to the neighbourhood climate, because it refers to a sense of safeness in the local community, that is, the perception of being safe within it, and the belief that there are no dangers to fear when walking around in the neighbourhood (“in this neighbourhood you are not afraid to go for a walk, fearing that something bad happens, I go around calmly, without apprehension”). Although less frequently mentioned compared to the availability of meeting places, the perception of living in a quiet neighbourhood and the feeling of safeness represent relevant aspects in youth evaluation of their local community, constituting, respectively, 15.1% and 11.6% of the quotes concerning *positive structural characteristics* of the neighbourhoods, and 5.6% and 4.4% of all the quotes describing the neighbourhoods.

When describing the strengths of their neighbourhoods in terms of structural and institutional features, participants also named the “adequacy of public transportation” to reach the main areas of the city (13 quotes), the “quantity and quality of green areas” (11 quotes), the “absence of traffic” (10 quotes), the “cleanliness and the absence of physical and social disorders”, such as drug dealing and public drinking (8 quotes). Finally, the “availability and variety of commercial activities” have been described as strength of the neighbourhood, although a limited number of quotes concerning this particular feature was identified (5 quotes).

As shown in Figure 8, and consistently with what was found for neighbourhood social features, the aspect of neighbourhood structure and institutional resources most frequently named to describe the strengths of the community was the same one that adolescents mentioned with the highest frequency when talking about the negative characteristics of their neighbourhoods: the “lack or inadequacy of opportunities for activities and meeting places” (27 quotes). In particular, participants talked about the lack of meeting places when getting together with their friends, such as bars, parks and sportive fields; they also pointed out the lack of events organized within the local community able to gather residents, and the general paucity of opportunities for activities. When describing these aspects, adolescents also explained that the lack of meeting places in their own neighbourhood represents an obstacle for social relationships and interactions among residents.

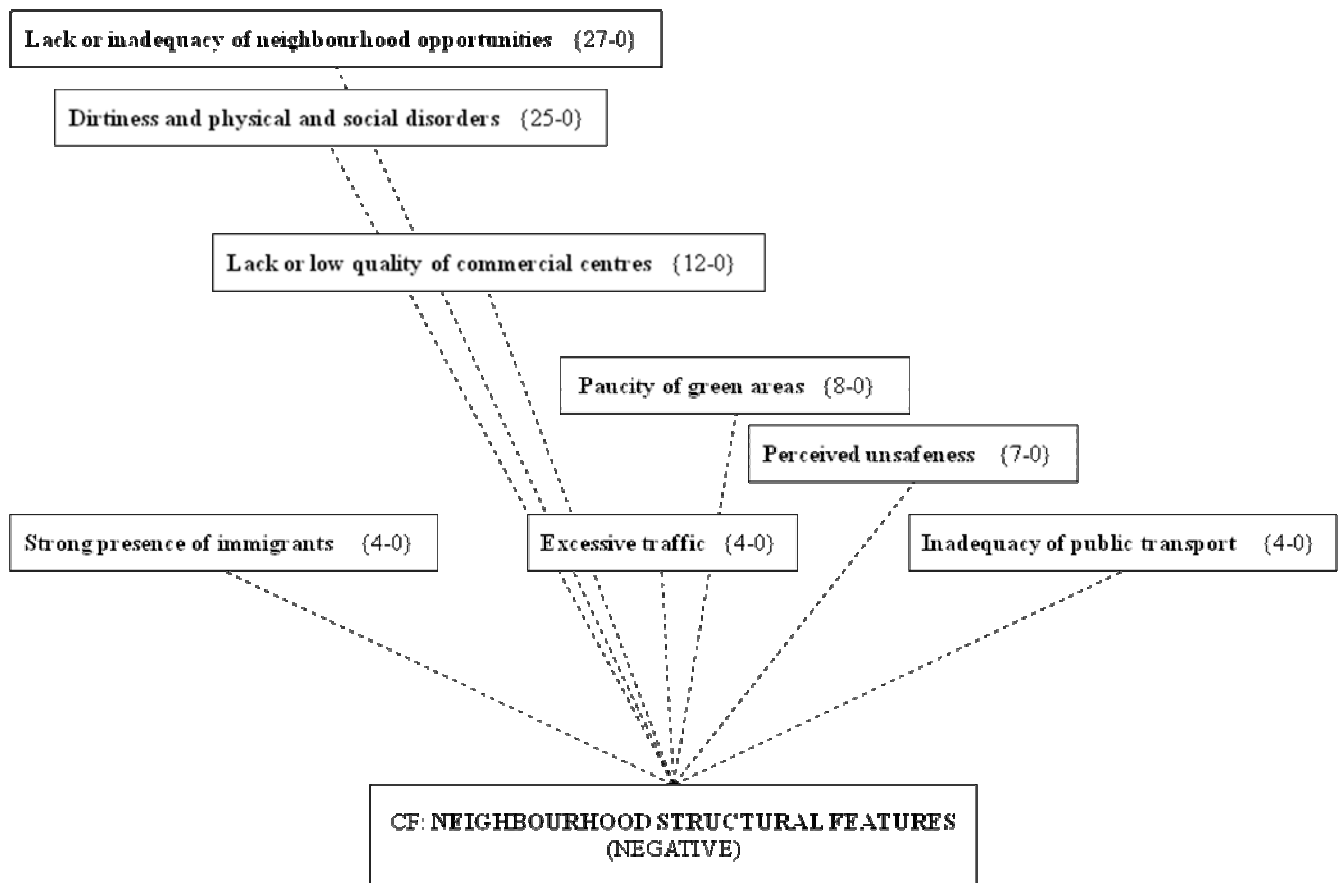


Figure 8. Coding categories pertaining to the neighbourhood structural features (positive) identified in the qualitative analysis.

Another aspect that adolescents frequently named as a weakness of their local communities was the “dirtiness and the presence of physical and social disorders” within the neighbourhood (25 quotes). The dirtiness of some areas, the bad conditions of abandoned buildings and the presence of signs of social disorders, such as fighting and public drinking, were more salient aspects in adolescents’ negative evaluation of their neighbourhoods, compared to the description of neighbourhood strengths; the absence of the same features, in fact, was one of the less frequently mentioned characteristics when talking about the positive features of the neighbourhood.

Adolescents interviewed also defined as deficits of their local community “the lack, or the low quality, of shopping centres” (12 quotes), the “paucity of green areas” (8 quotes) and the perception of “unsafeness” within the neighbourhood (7 quotes). Finally, although with a lower frequency, participants mentioned among the negative characteristics of their neighbourhood the “strong presence of immigrants”, the “excessive traffic” and the “inadequacy of public transport” (4 quotes for each coding category).

#### **6.4. Discussion**

Defining and measuring neighbourhood context represents a challenge for researchers and practitioners, who strive to find the most adequate geographical units to study and to identify the most relevant features to investigate (Nicotera, 2007). Indeed, in order to examine the influence of neighbourhood characteristics on the well-being of its residents it is necessary to take into account the methodological issues related to neighbourhood definition and measurement.

The definition of the construct “neighbourhood” becomes even more complex when conducting studies outside the U.S., where most of the research on neighbourhood effects comes from, and when studying adolescent populations. In these cases, adaptations have to be made in order to identify the neighbourhood boundaries from the residents’ point of view (not having a standard geographical unit like the U.S. census tracts), and to detect the most salient neighbourhood features to examine. The aims of the current study were to determine the most adequate unit of analysis and to identify the key neighbourhood features for studying the association between neighbourhood structural and social characteristics and adolescent development in an Italian mid-sized city (Padova). The results of this qualitative study, in fact, have been used to develop a quantitative study investigating the role of neighbourhood context in promoting civic engagement during adolescence (studies 2 and 3).

With respect to the first aim, our findings suggest that adolescents interviewed, when asked to identify their neighbourhood of residence, refer to the districts of the city, which in Padova are called “urban units”. The fact that the totality of participants recognized an urban unit as their neighbourhood gave us a fundamental indication that these districts divide the city in areas that have an important meaning for adolescents residing there. Probably because of their small size, our findings indicate that the urban units are more easily recognized as “neighbourhoods” compared to the six larger administrative neighbourhoods in which the city of Padova is divided. Indeed, these small districts traditionally represented local communities where people have the opportunity to interact on a daily basis, where local events take place, often together with the local parish activities.

Although Padova urban units do not represent administrative entities, with official councils where citizens can participate in the political decisions of the municipality, their strength lies in the availability of census information at their level of analysis. Since 2003, in fact, in the Annual Statistical Report of the Padova municipality, data on institutional, demographic, environmental and sanitary features are available for each urban unit of the city (Comune di Padova, 2009).

The findings of our study, and the availability of structural data at the district level, make the urban units the most appropriate geographical units for examining neighbourhood effects in the city



of Padova. For this reason, in the new research investigating the association between neighbourhood characteristics and adolescent development (studies 2 and 3), the boundaries of the urban units represented our geographical definition of neighbourhood.

Regarding the second aim of the current study, concerning the identification of neighbourhood features salient for adolescents' well-being in an Italian city (Padova), the findings suggest that participants evaluate their neighbourhoods referring both to social and structural characteristics.

In relation to neighbourhood social connectedness, the qualitative analysis pointed out that the neighbourhood features most frequently named by the adolescents interviewed differ, in part, from the aspects traditionally investigated in neighbourhood research (in which measures developed with adult populations are often also employed with adolescents). In particular, our findings suggest that adolescents residing in Padova, when asked to evaluate their neighbourhood of residence, widely refer to the presence of friends in their local communities. Within the discourses describing the strengths of their neighbourhoods in terms of social relationships, the most frequently mentioned aspect was the closeness to the adolescent friends' homes. Participants also pointed out that having friends in the same neighbourhood was something that allowed them to meet more often and to do a variety of activities together. Thus, the geographical proximity to peers was seen as a factor contributing to strengthen the social relationships among young people residing in the same neighbourhood.

The social relationships with peers in the local community do not represent a typical feature investigated in neighbourhood research, although some scholars have pointed out its relevance when studying neighbourhood effects on adolescents' well-being (Cicognani et al., 2006; Chipuer et al., 1999; Quane & Rankin, 2006). Consistent with these scholars, our findings underline the importance of peers' social networks within the neighbourhood during adolescence; the narrative units describing social ties with peers, in fact, represented more than a quarter of all the quotes pertaining to the positive social characteristics of their neighbourhoods.

Adolescents interviewed, in their descriptions of neighbourhood strengths, also reported the importance of neighbourhood features traditionally studied in the field, such as having an extended social network with neighbours, relationships among residents characterized by trust and reciprocity, and a general positive evaluation of the people residing in the local community. In describing these features, adolescents reported to appreciate knowing many people in their neighbourhoods, and they underlined the advantages of the mutual support that neighbours provide to each other, allowing them to easily solve some problems by just relying on the social resources within the local community. These findings confirm the importance of examining these aspects of

neighbourhood social connectedness when investigating neighbourhood effects on adolescents' well-being (Duke et al., 2009; Herrero & Gracia, 2007; O'Campo et al., 2010; Perkins & Long, 2002; Putnam, 1993, 2000; Sampson et al., 1999).

Finally, other two features frequently named when talking about social strengths of the neighbourhood were the level of connectedness between youths and adults and the youth emotional link to their communities. The former, called intergenerational closure, refers to the adults' willingness to monitor adolescents' behaviour and to be reference models if advice and support are needed (Furstenberg et al., 1999; Sampson et al., 1999; Sandefur & Laumann, 1998), and it has not been widely investigated in neighbourhood research. The second represents the emotional dimension of neighbourhood social processes, and it is called place attachment. This construct, which can be defined as the emotional bond or connection that individuals develop toward specific places over time via repeated positive interactions (Altman & Low, 1997), has received particular attention in the field of community psychology (e.g., Manzo & Perkins, 2006). However, studies examining place attachment among the processes linking neighbourhood features and adolescents' well-being are rare (Dallago et al., 2009). The findings of the current study, on the other hand, suggest the importance of these neighbourhood characteristics from adolescents' point of view, and the need to study in greater depth their role in influencing adolescents' well-being.

The importance of these neighbourhood features is further confirmed by the overlap between the strengths and the weaknesses of the local community to which adolescents refer when evaluating their own neighbourhoods: the most frequently named negative characteristics, indeed, are represented by the lack or the paucity of the most salient neighbourhood strengths, such as the weakness of social relationships, the negative evaluation of neighbours, the lack of peer social networks and, less frequently mentioned, the lack of trust and reciprocity among residents. The concurrence of the neighbourhood features named by participants when describing strengths and weaknesses of their communities lends support to the relevance of these particular aspects for adolescent well-being.

Looking at the structural and institutional characteristics (which in the current study referred to all the neighbourhood features not pertaining to social connectedness), a particular aspect emerged as a critical feature in adolescents' descriptions of their neighbourhoods: the availability of "neighbourhood opportunities" for activities and meeting places in the local community. The quantity, but also the quality, of places for meeting friends and the variety of youth activities available, were the neighbourhood features most frequently mentioned by adolescents when discussing structural aspects. Narrative units included in this coding category, in fact, represent more than a third of the quotes describing the positive structural characteristics of the

neighbourhood. This result underlines the importance of considering this particular type of institutional resource when studying neighbourhood effects in adolescent populations. The critical role of meeting places and activities is highlighted in the *institutional resources* model (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009), and several studies have examined the developmental benefits of participating in structured activities during adolescence (Barnes et al., 2007; Dworkin et al., 2003; Xue et al., 2007). However, the processes through which the availability and the quality of meeting places and activities in the community influence youth development have been less studied, and additional evidence is needed in order to elucidate these mechanisms (Leventhal et al., 2009; Quane & Rankin, 2006).

With respect to the neighbourhood opportunities for activities and meeting places, the other characteristics of the neighbourhood have been mentioned with a much lower frequency. Other structural and institutional features that participants reported to appreciate ranged from perception of safety and calm climate, to the availability of green areas, to the absence of physical and social disorders within the local community. The variety of features mentioned by adolescents in their descriptions of neighbourhood strengths support the wide range of characteristics that can be relevant during adolescence, and the need to accurately choose how to measure the neighbourhood based on research aims.

Consistently with what was found regarding neighbourhood social connectedness, the neighbourhood feature mentioned with the highest frequency when talking about the negative characteristics of their neighbourhoods was represented by the lack, or inadequacy, of the most frequently named strength: the lack or low quality of opportunities for activities and meeting places. Also in this case, the concurrence of neighbourhood features with which adolescents described both the positive and the negative aspects of living in their communities, underlines the relevance of neighbourhood opportunities for adolescent well-being. Participants also gave some suggestions about possible mechanisms through which the availability of meeting places and activities can impact residents' well-being. Talking about the lack of this particular resource in their community, in fact, adolescents pointed out that the paucity of meeting places, activities, and events in the neighbourhood, hinders the opportunities for residents to get to know each other and extend their social networks within the neighbourhood. This potential pathway of influence, while it has not been widely investigated yet, has received some empirical support in recent studies showing that the presence of spaces and opportunities for activities can strongly impact the level of social connectedness in the neighbourhood (Anthony & Nicotera, 2008; Quane & Rankin, 2006).

## **6.5. Limitations and conclusions**

A major limitation of the current study is represented by the small sample of participants, who were all residing in Padova, a mid-sized Italian city (except for 4 of them, who were living in the extended area of the Padova province). The limited number of participants, and the limited area from which our sample was drawn (the Padova municipality) may not generalize to other Italian cities, differing in size and in other structural characteristics. However, the medium size of the city, which means it has some of the characteristics of a city but also shares some of the features of a small town, makes Padova somehow representative of many different geographical realities within the Italian context.

Another limitation derives from the exclusive investigation of an urban context; although within the Padova municipality there are some districts situated in rural areas, the sample was not selected in order to compare adolescents coming from urban and rural districts. Future studies should be focused on elucidating the potential differences in neighbourhood definitions and evaluations between young people residing in urban and rural zones (Nation, Fortney, & Wandersman, 2010).

Finally, a limitation of the current study was related to the fact that participants were not asked to identify physical boundaries on a map, but they simply indicated the name of their district of residence. Research in behavioural geography has found that individuals may have very different perceptions of where the neighbourhood boundaries are located (Lee, 1976; Wong, 2006). However, considering the complexity of the task for early and middle adolescents, and that subjective perceptions usually converge when clear natural or man-made boundaries are present (Flowerdew, Manley, & Sabel, 2008) (which is the case for most of the Padova districts), the identification of neighbourhood by names was considered sufficient.

The main strength of the current study derives from the possibility to use its results to develop a quantitative research investigating the association between neighbourhood context and a specific aspect of adolescent development: civic engagement. Methodological strains characterizing the field of neighbourhood research, indeed, entail the need to define neighbourhood context and choose features to investigate based on empirical evidence. Indeed, before examining neighbourhood effects on residents' well-being it is necessary to make several decisions related to neighbourhood definition and measurement; especially when conducting studies in countries where the research in the field is not advanced as in the U.S., researchers should avoid making these decisions by just relying on the empirical evidence coming from countries with different geographical, administrative and economic systems (Vieno et al., 2005).

The final aim of the current study, thus, was to establish an empirical basis to guide the development of a quantitative study investigating the association between neighbourhood structural, institutional, and social features and adolescent civic engagement in an Italian mid-sized city (Padova). First of all, the study shows that the most adequate units of analysis for studying neighbourhoods in the city of Padova are the urban units - administrative units that represent a further subdivision of the six bigger neighbourhoods of the city. These districts, thus, have been selected as the geographical units representing the 40 neighbourhoods of the city for the new quantitative research, in which a sample of adolescents, representative for each district, was drawn.

Furthermore, the qualitative analyses conducted allowed us to select the neighbourhood features most frequently named by participants, thus identifying the most salient characteristics of the local community according to young people residing in Padova. Based on the findings of the present study, the neighbourhood features to be investigated in the quantitative study have been selected.

In particular, the suggestions derived from the qualitative interviews have been integrated with the main empirical and theoretical evidence in neighbourhood research, taking into account the specific aims of the subsequent quantitative study: investigating the role of neighbourhood context in promoting civic engagement during adolescence. Indeed, the choice of the variables to study for measuring neighbourhood, also depends on the type of outcome under investigation, and the hypothesized relationships between neighbourhood variables and the phenomenon to be studied (Garner & Raudenbush, 1991).

With respect to neighbourhood social features, the following characteristics have been selected:

- neighbourhood friends;
- social relationships with neighbours;
- trust and reciprocity among neighbours;
- neighbourhood intergenerational closure;
- neighbourhood attachment.

The first two features pertain to the level of adolescents' personal connectedness within the neighbourhood, both with peers and adults. The third and the fourth characteristics represent the level of social cohesion among people perceived by adolescents in their neighbourhoods; also in this case the constructs include a measure of social cohesion among residents in general, and a more specific measure investigating the level of connectedness between young people and adults in the neighbourhood.

Regarding neighbourhood structural features, institutional resources, and physical composition and social disorder, the following characteristics have been selected for the quantitative study:

- ethnic composition of the neighbourhood;
- density of population in the neighbourhood;
- perceived wealth in the neighbourhood;
- neighbourhood opportunities for activities and meeting places;
- neighbourhood physical and social disorder.

In the seventh chapter, the association between neighbourhood social features and adolescent civic engagement will be investigated in an integrative model elaborated through the integration between theoretical models in neighbourhood research and traditional developmental theories (see chapter 4). In the eighth chapter, the association between neighbourhood structural and social features will be examined, in order to evaluate how neighbourhood structure may influence adolescents' development through its impact on social connectedness among residents.

## CHAPTER 7

### FROM NEIGHBOURHOOD SOCIAL CONNECTEDNESS TO ADOLESCENT CIVIC ENGAGEMENT: AN INTEGRATIVE MODEL

*"Because learning does not consist only of knowing what we must or we can do,  
but also of knowing what we could do and perhaps should not do."*

*- Umberto Eco -*

#### **7.1. Introduction**

Recently, a number of studies have been conducted with the aim of understanding which characteristics of the local community may promote or hinder civic development, thereby elucidating some of the pathways responsible for this association (Atkins & Hart, 2002, 2003; Da Silva et al., 2004; Duke et al., 2009; Hart et al., 2004; Hart et al., 2005; Kegler et al., 2005; Flanagan et al., 2007; Kahne & Sporte, 2008). The choice to investigate neighbourhood context as a predictor of adolescent civic engagement has been mainly prompted by theoretical reasons. Indeed, constructs traditionally employed to conceptualize neighbourhood social connectedness (e.g., social cohesion, collective efficacy, social capital) are strongly related with the definition of civic engagement. On one hand, whichever construct is employed, the social connectedness of the local community refers to the quantity and quality of social interactions among residents, and the degree to which they are willing to support each other and work together to solve community issues (see chapters 2 and 4). On the other hand, the definition of civic engagement is centred on the interest in working for the common good, deriving from the belief that every member has a central role in contributing to the well-being of the local community or wider society.

For this reason, the social processes occurring within the neighbourhood have been defined as a microcosm of public life, in which adolescents have opportunities to exercise rights and assume responsibilities as members of the local community, thus learning how to contribute to the common good (Flanagan et al., 2007).

Given that the line of research analyzing the association between neighbourhood context and adolescent civic engagement is relatively new, it is difficult to draw strong conclusions from the existing literature; however, there is some evidence suggesting that neighbourhood processes may have a critical role in the socialization of young people to civic attitudes and behaviours, and proposing potential pathways through which neighbourhood features can influence civic

development.

### ***7.1.1. Neighbourhood social connectedness as a determinant of adolescent civic engagement***

Studies examining the association between neighbourhood context and adolescents' civic engagement have mostly been focused on social processes of the local community, analyzing, in particular, the levels of social connectedness within the neighbourhood.

Findings of these studies have given support to the statement that some of the processes occurring within the neighbourhood may represent functioning of civil society (Da Silva et al., 2004; Duke et al., 2009; Flanagan et al., 2007; Kahne & Sport, 2008; Kegler et al., 2005); in this microcosm of civic life, approachable and easy to understand, young people seem to learn how to give their contribution to improve the common good, claiming their rights but at the same time assuming the responsibilities entailed in being part of a community.

Indeed, when adolescents perceive themselves to be living in a neighbourhood where people look after each other and are willing to collaborate to solve common issues, they also report a higher commitment to civic participation (Flanagan et al., 2007; Kahne & Spote, 2008). Although evidence supporting the association between neighbourhood social connectedness and adolescent civic engagement is increasing, integrating research findings in order to draw general conclusions is complex, because of the different operationalizations with which scholars define and measure social relationships in the neighbourhood.

Regardless of the specific construct employed (e.g., social cohesion, informal social control, community connectedness, community attachment), studies investigating neighbourhood connectedness can be further differentiated based on how social relationships are defined and measured.

In particular, some studies have conceptualized social connectedness as adolescents' perception of the degree to which people in the neighbourhood interact and take care of each other. Although this conceptualization relies on an "insider's" point of view, in these studies young people are asked to report how they perceive the general connectedness among people residing in the neighbourhood. When evaluating the quality of social relationships in their local community, adolescents could be influenced by their personal ties with neighbours; however, they are evaluating the general level of social connectedness among residents (Flanagan et al., 2007; Kahne & Spote, 2008).

Findings from these studies have shown a positive association between the degree to which adolescents perceive strong relationships among neighbours and their level of civic responsibility and participation: residing in a neighbourhood where people are tied by cohesive relationships



seems to promote adolescent commitment to contribute to the well-being of the community (Flanagan et al., 2007; Kahne & Sporte, 2008). A particular aspect of neighbourhood social connectedness emerged as a determinant of young people's civic engagement regards the presence of adults who look after children and adolescents, to which young people can turn when they need support or advice (intergenerational closure). Cohesive relationships between adolescents and adults in the local community may nurture adolescents' sense of civic responsibility because adults represent role models and provide young people the resources they need to participate in the life of the local community (Flanagan et al., 2007; Kahne & Sporte, 2008; Kegler et al., 2005).

Other studies, while employing similar labels to measure the quality of social interactions and relationships within the neighbourhood (such as neighbourhood connection and community connectedness), have focused on adolescent personal connection with people in the local community. In these studies, adolescents report the degree to which they know and interact with other residents, and the perceived quality of their personal ties with neighbours. Similarly to studies analysing general cohesion, higher levels of adolescent personal connectedness were associated to a stronger civic engagement in adolescence (Da Silva et al., 2004; Duke et al., 2009).

Finally, some scholars have obtained analogous results measuring neighbourhood social connectedness through multidimensional constructs, including both the general perception of social cohesion among residents and adolescents' personal ties with neighbours (Albanesi et al., 2007; Ohmer, 2007), obtaining similar results.

Thus, despite the conceptualization of neighbourhood connectedness, empirical support for its role in influencing adolescent civic engagement has been found. However, pathways of influence linking the general cohesion among neighbours and youth personal connectedness, to their level of civic engagement, may be different. Focusing on one particular level of social connectedness (general cohesion or personal connectedness), or using a single measure including these two aspects, does not allow an in depth investigation of the different mechanisms linking these neighbourhood features to adolescent civic engagement.

For this reason, the general aim of the current study is to expand the existing literature in the field by simultaneously analysing the role of neighbourhood social cohesion (operationalized as intergenerational closure and levels of trust and reciprocity) and personal connectedness in the local community (conceptualized as the adolescent network of friends in the neighbourhood and the quality of social relationships with neighbours) in influencing adolescent civic engagement (civic attitudes, competencies, and behaviours).

### ***7.1.2. Linking neighbourhood social features and adolescent civic engagement: potential pathways of influence***

Research conducted during the last decade highlighted the role of neighbourhood social connectedness in influencing civic development, thus showing how neighbourhood features can also be conceptualized as resources for positive youth development. Similarly to early studies on the negative consequences of neighbourhood disadvantage on adolescent emotional and behavioural problems, the increasing evidence confirming the positive association between neighbourhood social connectedness and adolescent civic engagement has led scholars to analyze in greater depth potential pathways of influence (Kohen et al., 2008; Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009).

As illustrated before (chapter 4), there is a paucity of theoretical models able to explain how civic attitudes, behaviours and competencies develop during adolescence in relation to neighbourhood features (Wilkenfeld et al., 2010). Scholars investigating neighbourhood effects are just beginning to comprehend some of the processes through which structural disadvantage negatively influences youth development, even if this was the focus of the earlier studies (Kohen et al., 2008; Leventhal et al., 2009). Considering that the conceptualization of neighbourhood context as a resource for positive development is relatively new, and the novelty of civic engagement as a topic in psychology (Da Silva et al., 2004), the lack of theoretical models elucidating the link between neighbourhood connectedness and youth civic development is not surprising.

However, recent theoretical advances of research on neighbourhood effects, starting from early models such as the social disorganization theory (Shaw & McKay, 1942), identified some processes linking neighbourhood features and adolescent outcomes (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009). Although the *institutional resources, norms and collective efficacy* and *relationships and ties* models (Leventhal & Brooks-Gunn, 2000) have been developed with a main focus on adolescent emotional and behavioural problems, the pathways identified by the authors can also be useful in the understanding of the neighbourhood effects on adolescent civic development (see chapter 3).

In particular, adapting the assumption of the norms and collective efficacy model to the investigation of adolescent civic engagement, two potential pathways linking neighbourhood social connectedness and youth civic development can be identified:

- Living in a highly cohesive neighbourhood, where people help each other and work together for the community, adolescents may be socialized to civic norms and behaviours, learning how to contribute to the common good;

- In neighbourhoods with higher levels of social connectedness, where residents support each other and are willing to work on behalf of the community, adolescents may be more likely to create social networks with civically responsible peers and adults (which, in turn, may have a positive influence on adolescent civic engagement).

A common criticism to the models elaborated by Leventhal et al. (2000, 2009) regards the need to identify more specific mechanisms responsible for the association between neighbourhood context and youth development. For this reason, in order to elucidate some of the processes through which neighbourhood social connectedness influences adolescent civic development, in the current work the *norms and collective efficacy* model (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009) has been integrated with developmental theories relevant for the understanding of adolescent civic engagement.

In particular, the social cognitive theory (Bandura, 1977), the theory of role taking (Selman, 1980, 2003), the psychosocial theory (Erikson, 1968) and the theory of socio-political development (Watts et al., 1999, 2003) have been analysed in order to identify developmental processes explaining how social contexts (such as the neighbourhood, the peer groups and non-parental adults' networks) can influence adolescent civic development. Moreover, some specific mechanisms have been suggested in studies examining the association between neighbourhood connectedness and adolescent civic development (Flanagan et al., 2007).

In order to elaborate an integrative model linking neighbourhood social connectedness with adolescent civic engagement (civic attitudes, competencies and behaviours), the following processes have been selected from the theoretical models and empirical evidence examined:

- *Observational learning* (Bandura, 1986): adolescents learn civic attitudes, skills and behaviours through interactions with other people in the neighbourhood, or observations of others' behaviour and the consequences associated with their actions. During social interactions adolescents have the opportunity to create and change their cognitive structures referring to societal functioning and their role in society, because they are exposed to new visions and opinions;

- *Perspective taking* (Selman, 1980, 2003): the ability to understand a generalized perspective characterizing a group of people is promoted by social interactions with people from different backgrounds (as often occurs in the neighbourhood context) and it is critical to understand which values and behaviours are encouraged in one's own neighbourhood;

- *Formation of civic identity* (Erikson, 1968): social relationships are fundamental in influencing the process of identity formation, during which adolescents develop a worldview and a personal set of values and ideas about their role in society;

- *Reflection on civic issues* (Watts et al., 1999, 2003): all the situations encouraging reflection on civic issues, such as social interactions with peers and adults in the local community, have the potential to foster civic engagement, because youths can become aware of social inequalities and develop their motivation to work for changing asymmetries in society.

- *Giving back to one's own community*: people having strong social ties in the local community tend to develop a strong emotional bond to the neighbourhood (Morrow, 2000; Whitlock, 2007), which represents an important precursor of the development of civic attitudes (Brown et al., 2003; Manzo & Perkins, 2006); indeed, neighbourhood attachment nurtures adolescents' motivation to "give back" to the community the support that they received (Flanagan et al., 2007).

- *Concrete facilitation for civic actions*: Having many personal ties with people in the neighbourhood may foster adolescents' confidence in their abilities to actively contribute to the common good, by making it easier to identify key people in the local community, or to get involved in civic actions.

Finally, theoretical models and empirical evidence suggest pathways through which different components of civic engagement may be related:

- Youth may first develop a sense of civic responsibility to their local community, and then generalize civic attitudes to the wider society (Flanagan et al., 2007; Selman, 1980, 2003);

- Civic attitudes (responsibility) and competencies are precursors of civic behaviours: although participation can also reinforce attitudes and competencies, a set of beliefs supporting the importance of contributing to the common good is thought to be critical for adolescents' decision to be actively involved in civic action (Erikson, 1968; Selman, 1980, 2003; Watts et al., 1999, 2003).

Despite the paucity of theoretical models specifically elaborated to explain civic development in adolescence, the integration between community psychology and traditional developmental theories allows the identification of several processes through which neighbourhood social connectedness may influence adolescent civic engagement.

The aim of the current work is to develop and evaluate an integrative model (in two different versions) linking neighbourhood social connectedness (neighbourhood intergenerational closure, neighbourhood trust and reciprocity, social relationships with neighbours and neighbourhood friends) and different components of youth civic engagement (local and global civic responsibility, civic competencies, civic behaviours), developed combining the potential pathways of influence previously discussed. In particular, the model takes into account the mediating effects of attachment to the neighbourhood, non-parental adults' networks (model 1), and peer networks (model 2).

## 7.2. The proposed theoretical model

Consistent with the theoretical models reviewed, in the model two main pathways have been proposed: the first one links neighbourhood social cohesion (intergenerational closure, trust and reciprocity) to adolescent civic responsibility (local), through the mediation of adolescent non-parental adult networks (model 1); the second one links adolescent personal connectedness in the neighbourhood to adolescent competence for civic action and civic responsibility (local), taking into account the mediating role of the emotional bond to the neighbourhood (neighbourhood attachment) (see Figure 9).

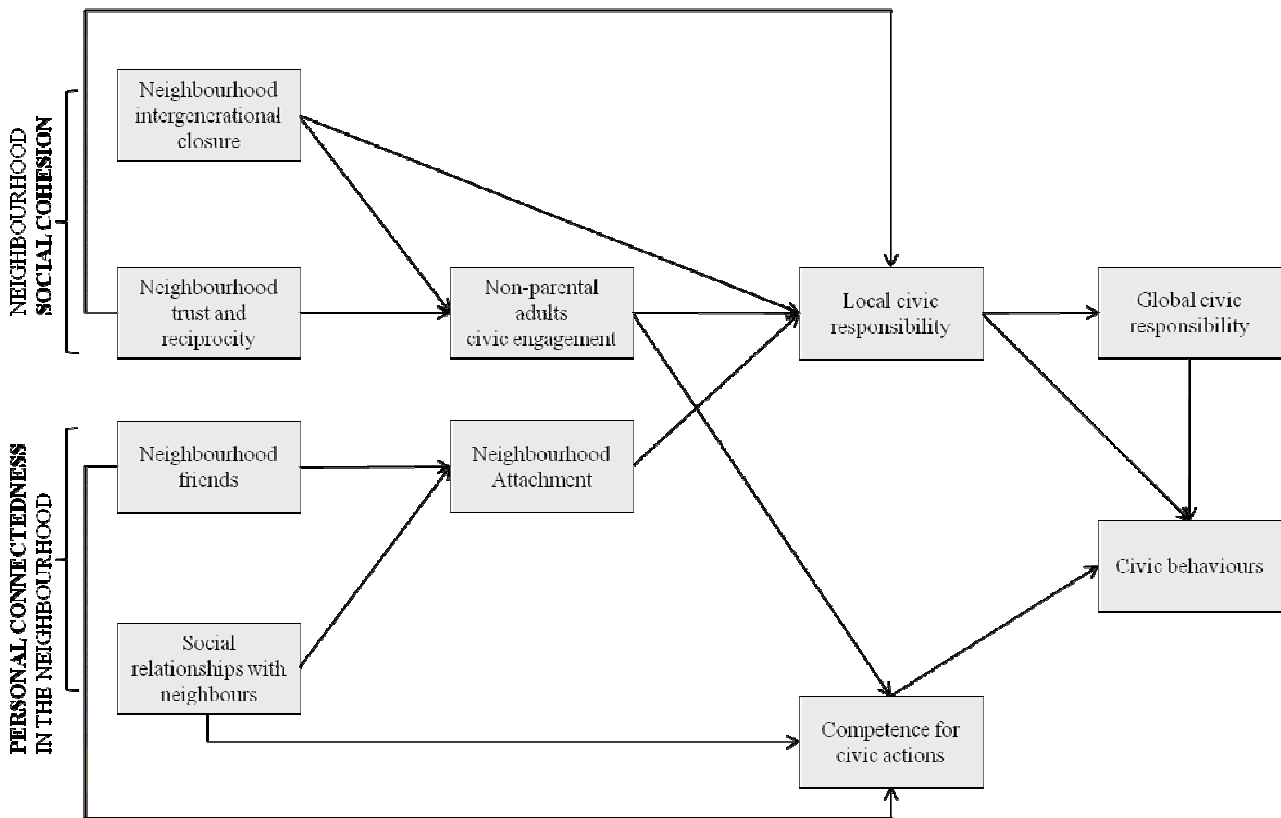


Figure 9. Theoretical model predicting adolescent civic engagement from neighborhood social connectedness, with the mediation of non-parental adult civic engagement and neighbourhood attachment.

According to the first pathway, living in a neighbourhood characterized by high levels of social cohesion, where there are cohesive relationships between adults and young people (*intergenerational closure*) and where people look out for each other (*trust and reciprocity*), adolescents may be socialized to civic values, developing the belief that everyone has the responsibility to work for the local community (*local civic responsibility*) (Leventhal & Brooks-

Gunn, 2000; Selman, 1980; Watts et al., 1999, 2003). Moreover, the model posits that the influence of neighbourhood connectedness is transmitted, in part, by a more proximal context: the non-parental adult network. More specifically, in neighbourhoods with higher levels of social cohesion (*intergenerational closure, trust and reciprocity*), for adolescents it is more likely to come into contact with civically engaged adults, that is, positive role models (Buchanan & Bowen, 2008; Chen et al., 2003; Moore, 2003; Paxton et al., 2006) who may foster youth civic responsibility (Bandura, 1986; Erikson, 1968; Hart & Atkins, 2002; Pancer et al., 2007; Zaff et al., 2008; Watts et al., 1999, 2003). An alternative pathway of influence will also be evaluated in a second version of the model, investigating the mediating effect of the perceived level of friends' civic engagement (model 2, see Figure 10): applying the norms and collective efficacy assumptions (Leventhal & Brooks-Gunn, 2000) to the promotive effects of neighbourhood resources, in highly cohesive neighbourhoods adolescents, it might be more likely to meet civically responsible peers, who may positively influence their civic attitudes (Bandura, 1986; Erikson, 1968; Zaff et al., 2008; Watts et al., 1999, 2003).

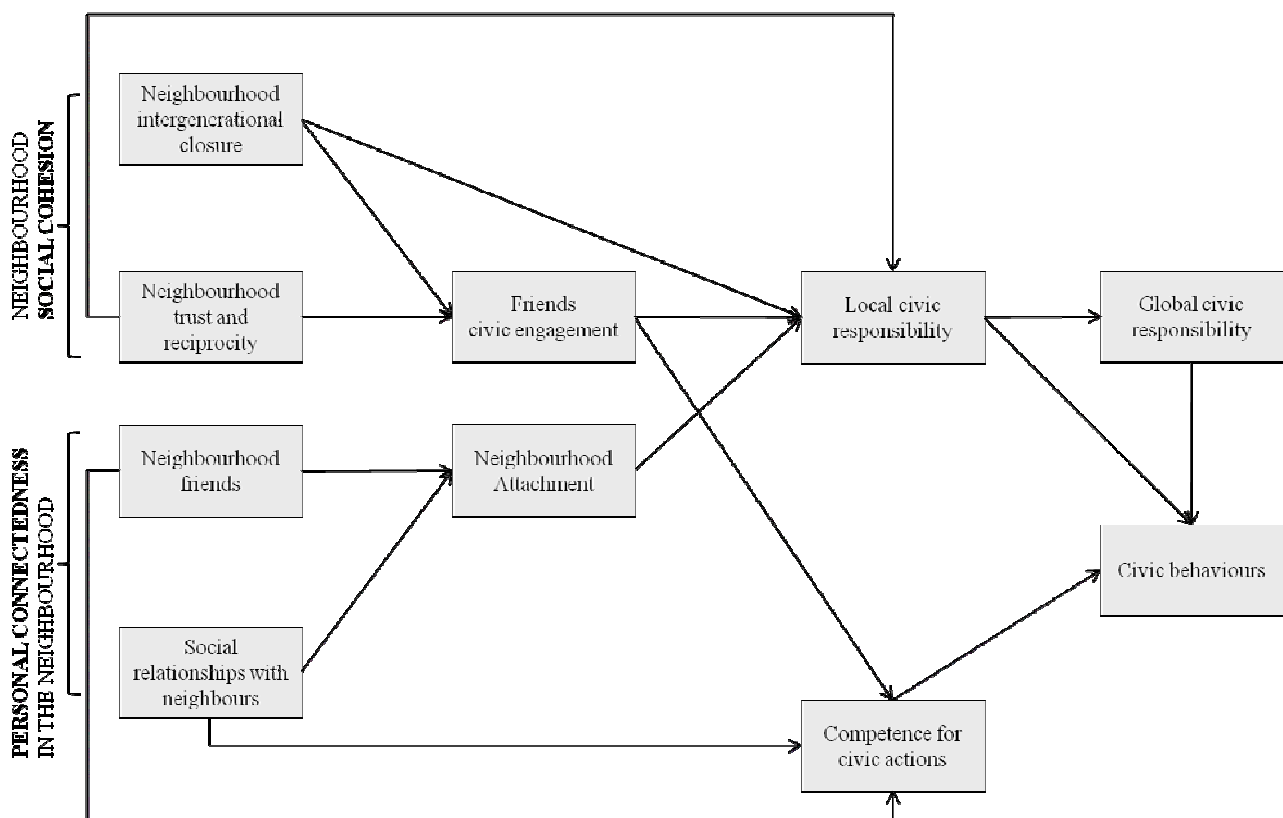


Figure 10. Theoretical model predicting adolescent civic engagement from neighbourhood social connectedness, with the mediation of friends' civic engagement and neighbourhood attachment.

In the second pathway proposed in the model we hypothesized that when adolescents have strong social relationships with peers in the local community (*neighbourhood friends*) and with other neighbours (*social relationships with neighbours*), they also develop a strong emotional bond to the neighbourhood (Morrow, 2000; Whitlock, 2007). Neighbourhood attachment, in turn, is thought to foster adolescent motivation to give back to their community and to work for making it a better place (Flanagan et al., 2007). Furthermore, according to the model, having many personal ties with people in the neighbourhood may increase adolescents' confidence in their abilities to actively participate in the life of the community, by making it easier to get involved in civic actions.

Regarding the interconnections among different components of civic engagement, the proposed model posits that adolescent civic responsibility towards the local community may be an antecedent of civic responsibility related to societal issues, such as human rights and environment (*global civic responsibility*) (Flanagan et al., 2007; Selman, 1980, 2003). Finally, we hypothesised that civic attitudes (local and global civic responsibility) and competencies are precursors of civic behaviours, because a set of beliefs supporting the importance of contributing to the common good and the perceived civic competence encourages an active involvement in civic action (Erikson, 1968; Selman, 1980, 2003; Watts et al., 1999, 2003).

## **7.3. METHODS**

### ***7.3.1. Sampling and participants***

In order to obtain a representative sample of the 40 urban units of the Padova Municipality, participants were randomly selected from the city register office. More specifically, a random sample of 800 young people was drawn from the complete list of 11-, 13- and 15-year-olds residing in Padova, employing a stratified sampling method with proportional allocation of the strata. The sample was stratified for: neighbourhood (urban unit, consistent with the results of the qualitative study), age, gender, and immigrant status. This sampling method allows the selection of a sample of participants analogous to the population in terms of the stratification variables. For this reason, depending on the size of the urban units, and based on the number of early and middle adolescents residing in these administrative units, participants sampled in each neighbourhood varied from 4 to 62 adolescents (four urban units, Isola di Terranegra, Fiera, Stazione Ferroviaria, Zona Industriale, were excluded from the sampling procedure, because of the small number of residents residing there; for the same reason, two adjacent urban units were merged: Porta Trento nord and Porta Trento sud).

Participants included in the study were 403 adolescents (47.9% male) from 38 different neighbourhoods of a mid-sized Italian city (Padova). The response rate was 62.6%, excluding families who relocated or who were not found. The participants' age ranged from 11 to 15 years

old, with a mean of 13.6 years old (SD = 1.64). Probably because of potential difficulties in filling out the questionnaire, even if the sample was stratified by immigrant status, almost all participants were born in Italy (95.3%), with small percentages from Eastern Europe (2.7%) and other countries (2.0%).

With regard to family structure, 89.6% of the participants came from a two-parent family (with parents married and living together). Finally, the socio-economic status of participants, as estimated by their father's level of education, was quite diverse: 0.8% had completed only elementary school, 17.6% had completed middle school, 8.8% had completed vocational studies, 36.3% had obtained a high school diploma and 36.5% had at least a bachelor's degree.

Since some of the adolescents had missing values in the variables of interest, the theoretical models were tested on a reduced sample. In the first model, testing the mediating effect of non-parental adults' civic engagement, adolescents who reported not having adults other than their parents to whom ask support and advice (N = 40) were also excluded; thus, the model was tested on a final sample of 347 participants. The sub-sample excluded from the analysis does not differ significantly from the final sample in terms of gender distribution ( $\chi^2(1) = .06$ , n.s.) or mean age (F (1,397) = .79, n.s.). The second model, testing the mediating role of friends' civic engagement, was tested on a final sample of 380 participants. The sub-sample excluded from the analysis does not differ significantly from the final sample in terms of gender distribution ( $\chi^2(1) = .73$ , n.s.), whereas there was a difference in terms of mean age, with a higher mean age in the final sample (13.6) compared to the excluded sample (12.8, F (1,397) = 5.08,  $p < .05$ ).

### ***7.3.2. Procedures***

The present data came from a study conducted in the city of Padova in the northeast of Italy, and was approved by the institutional review committee at University of Padova. In order to have access to the city register office for research purposes, thus overcoming privacy issues, the patronage with the Padova municipality was also been obtained.

The sampled families received the questionnaires (one for the adolescent, one for one of the parents) at home, along with a letter explaining the aims of the study and a written consent form for parents to allow their children to participate in the study. After a period ranging from three to five days, the families were contacted by a member of the research team (on the phone, when possible, or directly at home) to briefly discuss the aims of the study. Consent was requested from the family and an appointment was made to collect the completed questionnaires. The questionnaires were completed at home. Participants were instructed not to complete questionnaire sections which seemed unclear but rather to wait for clarification from researchers on the day of collection.



When the telephone number was not available (in almost in the 50% of cases), families were contacted directly at home. When the family was not found at home, the researchers made from three to five attempts in different hours of the day; after these attempts, if families were not found, they were excluded from the sample.

The distribution of the questionnaires was gradual, so that data were collected during a 4-month period (October 2009 – January 2010). Participants who took part in the study received a reward of 10 euros.

### **7.3.3. Measures**

#### ***Measures of neighbourhood social connectedness***

Neighbourhood connectedness measures were chosen based on the integration between research evidence and the results of our qualitative study (see chapter 6), which highlighted the most relevant neighbourhood features for a sample of adolescents residing in Padova.

*Neighbourhood intergenerational closure.* Intergenerational closure in the neighbourhood was measured using Sampson and colleagues' scale (1999), which comprises 5 items asking participants about the level of connectedness between young people and adults in the local community (e.g., "There are adults in this neighbourhood that young people can look up to"; "Parents in this neighbourhood know their children's friends"). Participants responded on a Likert scale ranging from (1) "completely disagree" to (5) "completely agree". The Cronbach's alpha for the scale was .78. A single measure of intergenerational closure was created by averaging participants' responses.

*Neighbourhood trust and reciprocity.* The "social support and emotional connection" subscale of the Sense of Community Scale for Adolescents (SoC-A; Cicognani et al., 2006) was used to measure the level of perceived trust and reciprocity in the neighbourhood. Since the sub-scale does not include item on perceived trust among residents, and adolescents in the qualitative study explicitly referred to this aspect of social relationships (see chapter 6), two items drawn from the Health Behaviours in School-aged Children study were added (Boyce, Davies, Gallupe, & Shelley, 2008). The final scale was composed of 8 items, such as: "You can trust people around here" and "Many people in this neighbourhood are willing to help each other". Items are responded to on a 5-point scale ranging from (1) "completely disagree" to (5) "completely agree". The Cronbach's alpha for the scale was .86, and a single measure of neighbourhood trust and reciprocity was created by averaging participants' responses to the items.

*Neighbourhood friends.* Neighbourhood-based friendship was measured using the "emotional connection with peers" subscale of the SoC-A (Cicognani et al., 2006), comprising 6 items

concerning the quality of adolescent relationships with peers in their local community. “Many of my real friends are young people that live in this neighbourhood” and “I like to stay with other adolescents that live in this neighbourhood” are sample items. Internal consistency of the scale was good ( $\alpha = .91$ ); responses, that ranged from (1) “completely disagree” to (5) “completely agree”, were averaged for the measure of neighbourhood-based friendship.

*Social relationships with neighbours.* The level of personal knowledge and interaction with people in the neighbourhood was measured using a 5-item scale obtained by combining items employed in two different studies (Ziersch, Baum, MacDougall, & Putland, 2005; Widome, Sieving, Harpin, & Hearst, 2008). Considering that participants of the qualitative study referred to the degree to which they know neighbours and interact with them, items measuring these two aspects were selected from the literature, such as: “I regularly visit my neighbours” and “I know the names of a lot of people in my neighbourhood”. Item responses range from (1) “completely disagree” to (5) “completely agree.” The Cronbach’s alpha for the scale was .82, and a single measure of adolescent social relationships with neighbours was created by averaging participants’ responses to the items.

### ***Mediating variables***

*Non-parental adults’ civic engagement.* An adapted version of the Parents Civic Engagement scale (Flanagan et al., 2007) was used to measure the perceived level of civic engagement of the adolescent non-parental adults’ networks. The 6-item scale refers to the level of perceived civic responsibility and participation characterizing the adults to whom adolescents turn when they need support or advice (excluding their parents). Sample items are: “Adults that I can turn to are active in the life of the community” and “Adults that I can turn to think that everyone has a responsibility to work to make the world a better place”. The Cronbach’s alpha for the scale was .93; responses, that ranged from (1) “not at all” to (4) “a lot”, were averaged for the measure of non-parental adults’ civic engagement.

*Friends’ civic engagement.* Similarly to the previous scale, a measure of the level of perceived civic engagement among adolescents’ friends was created by adapting the Parents Civic Engagement scale (Flanagan et al., 2007). The scale was composed of 6 items asking participants to report their perception of their friends’ civic engagement. “Most of my friends volunteer for helping people in need” and “Most of my friends think that everyone has a responsibility to work to make the world a better place” are sample items. Internal consistency of the scale was good ( $\alpha = .81$ ); responses, ranging from (1) “not at all” to (4) “a lot”, were averaged for the measure of friends’ civic engagement.

*Neighbourhood Attachment.* The PREQ Neighborhood Attachment sub-scale (Bonaiuto et al., 2002) was used to evaluate the emotional bond felt by adolescents to the neighbourhood; the scale is composed of five items, such as: “It would be difficult for me to move from this place”, “I feel part of this place”. Considering that this scale was developed with adult populations, two additional items previously tested with adolescents was added, drawn from the “sense of belonging” subscale of the SoC-A (Cicognani et al., 2006) (“I feel like I belong to this neighbourhood” and “I like to notice that when some local events are organised, many people participate and get involved”). The final scale comprises 6 items, with a Cronbach’s alpha of .75. Participants responded on a Likert scale ranging from (1) “completely disagree” to (5) “completely agree”, and a single measure of neighbourhood attachment was created by averaging participants’ responses.

### ***Measures of adolescent civic engagement***

Considering the novelty of civic engagement as a topic in psychological research, measures validated in Italy are not currently available, and the development of measures to investigate adolescent civic engagement is also at an early stage in international research. For this reason, we drawn the measures for our study from the work of Flanagan and colleagues (2007), which currently represents the most rigorous work on adolescent civic engagement available in the literature (sometimes combining different scales consistent with the study aims).

*Local civic responsibility.* A scale to measure the adolescent level of civic responsibility was created by combining items of the Participatory Citizen and Political efficacy scales (Flanagan et al., 2007), and adding explicit reference to the neighbourhood in the items. Sample items of the 6-item scale are: “I think it’s important to work for improving conditions in my neighbourhood” and “If there were more opportunities to participate in improving the neighbourhood, I would do so”. The Likert scale for responses ranges from (1) “completely disagree” to (5) “completely agree”. Internal consistency of the scale was good (alpha = .88), and participants’ responses were averaged for obtaining a single measure of adolescent civic responsibility towards their neighbourhood (local).

*Global civic responsibility.* The sense of civic responsibility towards societal issues was measured by combining items from the Justice Oriented Citizen and the Participatory Citizen scale (Flanagan et al., 2007). The scale asks participants the degree to which they consider it to be important to work towards solving societal problems or improving the well-being of society as a whole (e.g., “I think it is important to protest when something in society needs changing”, “There are things which people can do as individuals to help solve the world’s problems”). The scale is composed of 9 items (alpha= .74), with a Likert scale for responses varying from (1) “completely

disagree” to (5) “completely agree”. A single measure of global civic responsibility was obtained by averaging participants’ responses to the different items.

*Competence for civic actions.* The Competence for Civic Action scale (Flanagan et al., 2007) was used to measure adolescents’ perceived skills and abilities related to the civic domain. The 5-item scale asks participants about the degree to which they feel capable of performing different actions aimed at solving community issues, such as organizing a public meeting or identifying individuals or groups who could help them with these problems. The Cronbach’s alpha for the scale was .82. Participants responded on a Likert scale ranging from (1) “I definitely can’t” to (5) “I definitely can”, and a single measure of the perceived competence for civic action was created by averaging participants’ responses.

*Civic behaviours.* Considered that participants’ age ranged from 11 to 15 years, items measuring relevant behaviours for the civic domain, but also appropriate for the developmental stage of participants, were drawn from the literature. In particular, items from the Media Consumption scale (Flanagan et al., 2007) and from the work of Albanesi and colleagues (2007) were combined in a 4-item scale. Participants were asked to report the frequency with which they performed different behaviours during the 12 months before the study, such as keeping up-to-date about events occurring locally or around the world, volunteering or working for the local community (for example, participating in the organization of a local party). The Cronbach’s reliability coefficient for the scale was .63. Participants indicated on a 5-point scale the frequency (from “never” to “everyday”) of each civic behaviour, and a single measure was created through the average of responses.

#### 7.3.4. Plan of analysis

Descriptive analyses were performed using the software SPSS 17.0. The pattern of relationships specified by the conceptual model proposed (in the two different versions) was examined using path analysis implemented by the program LISREL. Since the model was tested with only observed variables, in order to evaluate the goodness of the model we considered the  $R^2$  of each endogenous variable and the total coefficient of determination (CD; Bollen, 1989; Jöreskog & Sörbom, 1996), defined as:

$$1 - \frac{|\hat{\Psi}|}{|\hat{\Sigma}_{yy}|}$$

where  $|\hat{\Psi}|$  is the determinant of the covariance matrix among the errors and  $|\hat{\Sigma}_{yy}|$  is the determinant of the covariance matrix among endogenous variables (Bollen, 1989).

Finally, we ran an analysis with bootstrap replication, which allows the measurement of the

reliability of a computed generic T statistic (Efron & Tibshirani, 1993). Unlike the Monte Carlo method, where data are generated based on a theoretical model, the bootstrap utilizes the sample of data as it was the population. More specifically, the method consists in extracting from the observed data a number B of samples with repetition. In each one of the sample extracted the T statistics are computed. In this way it is possible to obtain a sample distribution of T and to compute, for example, the T standard error, a confidence interval and the Bias (the deviation between the T value obtained in the sample and the mean of the distribution obtained with the bootstrap).

The sampling has been replicated 500 times, and for each replication the parameters and the  $R^2$  of the endogenous variables and of the whole model (CD) have been estimated.

## **7.4. Results**

### **7.4.1. Descriptive statistics**

Descriptive statistics and bivariate correlations among study variables, for the total sample and separated by gender, are shown in Table 2. Boys reported a greater tendency to have friends in their neighbourhood of residence, whereas girls scored higher on the perceived level of civic engagement among their friends; however, the differences were modest.

All bivariate correlations among study variables were significant and in the expected direction. In particular, there was a strong positive correlation among the variables measuring neighbourhood social connectedness: intergenerational closure, trust and reciprocity, neighbourhood friends and social relationships with neighbours (with r ranging from .43 to .59). Moreover, there was a positive correlation between the emotional bond that adolescents develop towards the neighbourhood (neighbourhood attachment) and the measures of neighbourhood connectedness (with r ranging from .30 to .49).

With respect to the level of civic engagement that adolescents perceive in their social networks of peers and adults, a strong positive correlation ( $r = .57$ ) between non-parental adults' and friends' civic engagement was found.

A positive correlation among the variables measuring the different components of civic engagement (local civic responsibility, global civic responsibility, competence for civic action, civic behaviours) was also found. More specifically, there was a strong positive correlation between the two measures of neighbourhood attitudes (local and global civic responsibility,  $r = .66$ ); there was also a positive association among different aspects of adolescent civic engagement (civic responsibility, competencies and behaviours), although more modest in magnitude (with r ranging from .29 to .37).

	1	2	3	4	5	6	7	8	9	10	11	M (SD)
1. Intergenerational closure	-	.59***	.51***	.53***	.24***	.27***	.39***	.36***	.25***	.22***	.29***	3.29 (.72)
2. Trust and reciprocity		-	.43***	.43***	.26***	.28***	.49***	.31***	.28***	.25***	.22***	3.09 (.64)
3. Neighbourhood friends			-	.50***	.21***	.13*	.44***	.28***	.15**	.19***	.28***	3.21 (.98)
4. Personal relationships with neighbours				-	.26***	.21***	.30***	.27***	.18**	.26***	.31***	3.21 (.87)
5. Non-parental adults' c.e.					-	.57***	.17**	.44***	.46***	.22***	.38***	2.56 (.62)
6. Friends' c.e.						-	.17**	.50***	.46***	.27***	.36***	2.04 (.59)
7. Neighbourhood attachment							-	.30***	.23***	.13**	.18***	3.76 (.72)
8. Local civic responsibility								-	.66***	.30***	.37***	3.52 (.75)
9. Global civic responsibility									-	.32***	.29***	3.80 (.51)
10. Competence for c. action										-	.31***	2.89 (.85)
11. Civic behaviours											-	2.56 (.78)
<i>Males</i>	3.32 (.76)	3.10 (.67)	3.32 (.98)	3.21 (.89)	2.51 (.65)	1.97 (.60)	3.78 (.72)	3.52 (.79)	3.76 (.54)	2.89 (.89)	2.59 (.83)	
<i>Females</i>	3.27 (.70)	3.07 (.62)	3.11 (.98)	3.20 (.86)	2.60 (.58)	2.10 (.57)	3.75 (.72)	3.53 (.72)	3.84 (.49)	2.89 (.81)	2.54 (.73)	
<i>t-test</i>	.58	.39	2.12*	.19	-1.36	-2.34*	.33	-.19	-1.59	.05	.72	
<i>DF</i>	(401)	(400)	(398)	(400)	(361)	(395)	(400)	(395)	(395)	(390)	(389)	

\* p < .05; \*\* p < .01; \*\*\* p < .001

Table 2. Means, standard deviations, and correlations among study variables and t-tests for adolescent gender.

#### 7.4.2. Testing the theoretical model

Multivariate analyses began with testing the proposed models (Figure 9 and 10). Figure 11 represents the test of the model 1 (evaluating the mediating effect of adults' civic engagement) with estimated standardized parameters. The squared multiple correlations for the structural equations indicate that the model accounts for a significant portion of the variance in study variables, that is: 7% of the variance in non-parental adults' civic engagement, 26% in neighbourhood attachment, 31% in local civic responsibility, 43% in global civic responsibility, 10% in competence for civic action and 18% in civic behaviours. The total coefficient of determination (CD) was .39. Based on the thresholds offered by Cohen (1988), the effects we found were between medium and large<sup>1</sup>.

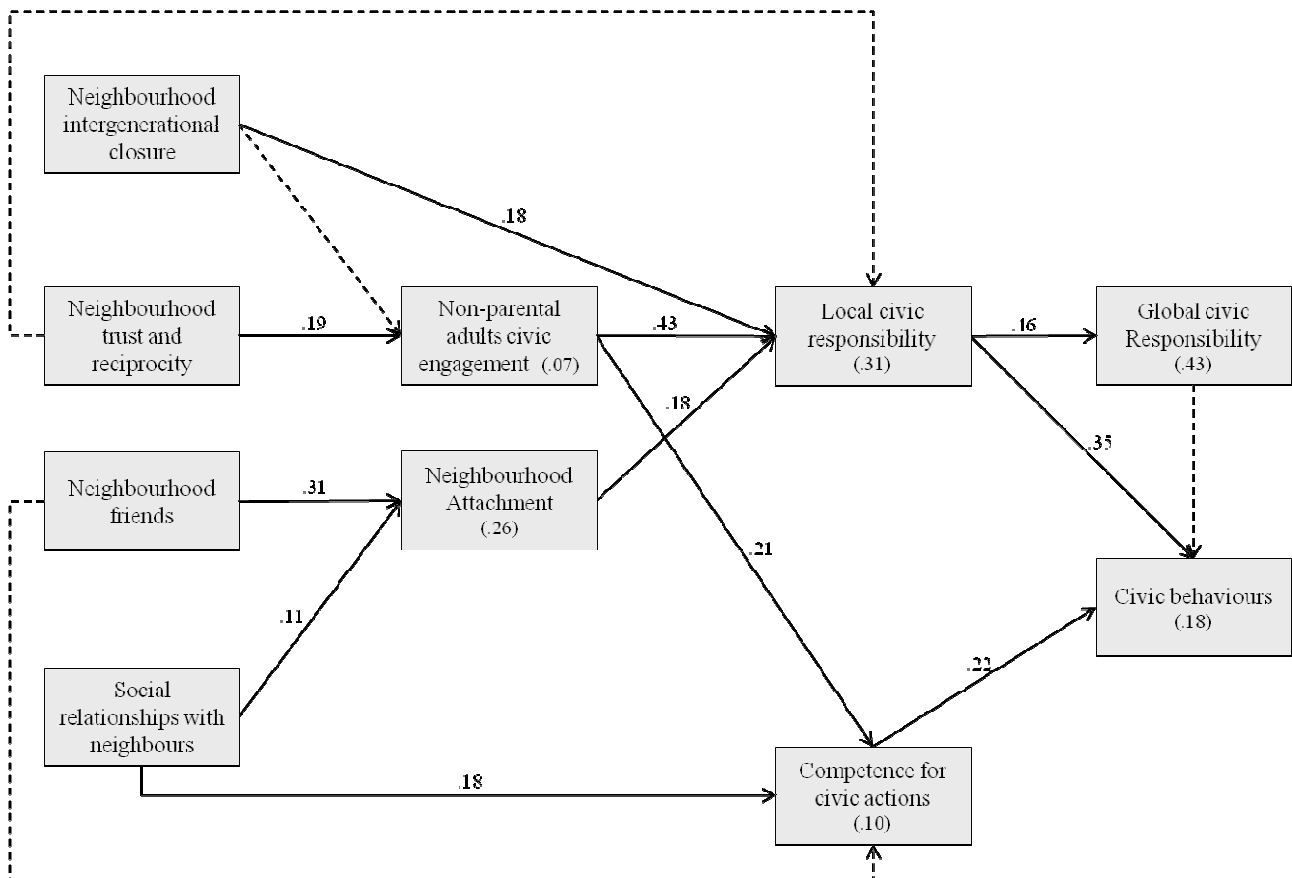


Figure 11. Path coefficients for the proposed model 1 predicting adolescent civic engagement, through the mediating effect of adults' civic engagement.

<sup>1</sup>Since Cohen's thresholds refer to correlation coefficients ( $r = 0.1$ : small ES;  $r = 0.3$ : medium ES;  $r = 0.5$ : large ES), for comparison with the  $R^2$  of the single equations, we squared the thresholds, thus obtaining the following values: 0.01 (small ES), 0.09 (medium ES) e 0.25 (large ES).

In the model tested, there were three predicted coefficients that were non-significant: the link between intergenerational closure and adults' civic engagement, the link between trust and reciprocity and adolescent civic responsibility (local) and the path linking neighbourhood friends to adolescent competence for civic action.

	Neighbourhood trust and reciprocity	Neighbourhood intergenerational closure	Neighbourhood friends	Social relationships with neighbours
Non-parental adults' civic engagement	-	-	-	-
Neighbourhood attachment	-	-	-	-
Local civic responsibility	.08	n.s.	.05	.02
Competence for civic action	.04	n.s.	-	-
Global civic responsibility	.07	.11	.02	.01
Civic behaviours	.06	.09	.03	.04

*Table 3. Indirect effects of exogenous variables (model 1)*

	Non-parental adults' civic engagement	Neighbourhood attachment	Local civic responsibility	Competence for c. action	Global civic responsibility	Civic behaviours
Non-parental adults' civic engagement	-	-	-	-	-	-
Neighbourhood attachment	-	-	-	-	-	-
Local civic responsibility	-	-	-	-	-	-
Competence for c. action	-	-	-	-	-	-
Global civic responsibility	.20	.08	-	-	-	-
Civic behaviours	.19	.06	-	-	-	-

*Table 4. Indirect effects of endogenous variables (model 1)*

Along with the direct paths shown in Figure 11, there are some significant indirect relationships. With respect to the exogenous variables, neighbourhood trust and reciprocity has indirect effects on local civic responsibility (.08) and competence for civic action (.04) through non-parental adults' civic engagement; moreover, there are indirect effects of trust and reciprocity on global civic responsibility (.07) and civic behaviours (.06).



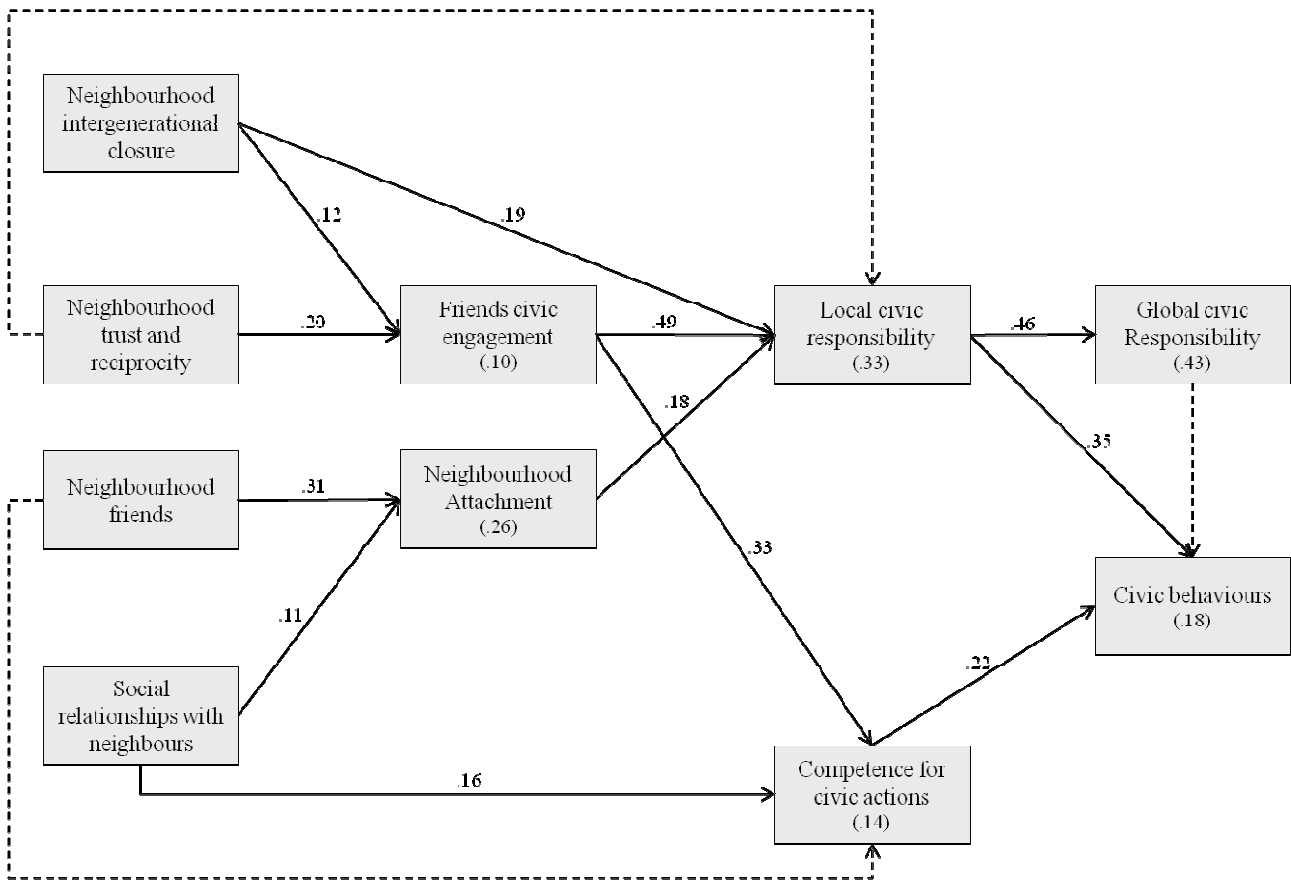


Figure 12. Path coefficients for the proposed model 2 predicting adolescent civic engagement, through the mediating effect of friends' civic engagement.

Intergenerational closure also has indirect effects on global civic responsibility (.11) and civic behaviours (.09), through its effect on local civic responsibility. An indirect effect was also found between neighbourhood friends and local civic responsibility (through neighbourhood attachment, .05), global civic responsibility (.02) and civic behaviours (.03), through neighbourhood attachment and local civic responsibility. Similarly, social relationships with neighbours have indirect effects on local civic responsibility (through neighbourhood attachment, .05) global civic responsibility (.01) and civic behaviours (.04). Indirect effects of exogenous and endogenous variables are represented in Tables 3 and 4.

Figure 12 represents the test of model 2 (evaluating the mediating effect of friends' civic engagement) with estimated standardized parameters.

Similar to the previous model, in model 2 (differing from the previous one only in terms of the variable *friends' civic engagement*, replacing *non-parental adults' civic engagement*) the squared multiple correlations for the structural equation indicate that the model accounts for a

significant portion of the variance in study variables, that is: 10% of the variance in friends' civic engagement, 26% in neighbourhood attachment, 33% in local civic responsibility, 43% in global civic responsibility, 14% in competence for civic action and 18% in civic behaviours. The total coefficient of determination (CD) was .40. Similarly to the previous model, the effects we found were between medium and large (Cohen, 1988).

In the test of model 2, only two predicted coefficients were non-significant: the link between trust and reciprocity and adolescent civic responsibility (local), and the path linking neighbourhood friends to adolescent competence for civic action.

The pattern of indirect relationships of the model is similar to model 1, but an indirect effect of intergenerational closure on local civic responsibility, through its effect on friends' civic engagement (.06), was also found. Indirect effects of exogenous and endogenous variables for model 2 are represented in Tables 5 and 6.

	Neighbourhood trust and reciprocity	Neighbourhood intergenerational closure	Neighbourhood friends	Social relationships with neighbours
Friends' civic engagement	-	-	-	-
Neighbourhood attachment	-	-	-	-
Local civic responsibility	.10	.06	.05	.02
Competence for civic action	.07	.04	-	-
Global civic responsibility	.07	.11	.02	.01
Civic behaviours	.06	.09	.04	.04

*Table 5. Indirect effects of exogenous variables (model 2)*

	Friends' civic engagement	Neighbourhood attachment	Local civic responsibility	Competence for c. action	Global civic responsibility	Civic behaviours
Friends' civic engagement	-	-	-	-	-	-
Neighbourhood attachment	-	-	-	-	-	-
Local civic responsibility	-	-	-	-	-	-
Competence for c. action	-	-	-	-	-	-
Global civic responsibility	.22	.08	-	-	-	-
Civic behaviours	.24	.06	-	-	-	-

*Table 6. Indirect effects of endogenous variables (model 2)*

Besides some differences between the two models tested, the pattern of relationships among variables was similar in the two models, indicating an analogous mediating effect of non-parental adults' and friends' civic engagement.

In Tables 7 and 8 the results of the bootstrap replications for the two models are presented. In the first column of the tables the mean values are shown, in the second one the standard errors, in third one the biases, computed as the deviation between the mean values obtained with bootstrap replications and the values computed in the original sample (Gentle, 2002). In the fourth column, the 95% confidence intervals computed with the "simple bias-corrected" method (Campbell e Torgerson, 1999) are shown. The analyses conducted using bootstrap methodology support the goodness of the models.

	Mean	SE	Bias	CI 95%
$\gamma_{11}$	.19	.06	-.001	.06-.30
$\gamma_{31}$	.07	.09	.002	-.12-.26
$\gamma_{12}$	.09	.06	-.001	-.03-.20
$\gamma_{32}$	.21	.08	-.005	.05-.34
$\gamma_{23}$	.31	.05	-.001	.22-.39
$\gamma_{43}$	.07	.07	-.002	-.04-.17
$\gamma_{24}$	.11	.04	-.001	.02-.20
$\gamma_{44}$	.17	.06	.002	.06-.29
$\beta_{31}$	.43	.06	.001	.33-.54
$\beta_{41}$	.21	.08	.000	.06-.36
$\beta_{32}$	.18	.07	.004	.04-.31
$\beta_{53}$	.46	.04	.002	.38-.54
$\beta_{63}$	.35	.07	-.005	.22-.47
$\beta_{64}$	.22	.05	.001	.10-.32
$\beta_{65}$	.01	.09	.005	-.19-.19
$R^2_{y1}$	.36	.08	-.007	.32-.41
$R^2_{y2}$	.36	.07	-.008	.30-.41
$R^2_{y3}$	.37	.35	.016	.29-.44
$R^2_{y4}$	.61	.05	-.010	.51-.69
$R^2_{y5}$	.15	.02	-.002	.12-.17
$R^2_{y6}$	.51	.03	-.006	.43-.57

Table 7. Means, standard errors, biases and confidence intervals of the bootstrap replications (model 1)

	Mean	SE	Bias	CI 95%
$\gamma_{11}$	.20	.07	-.005	.06-.33
$\gamma_{31}$	.06	.10	-.007	-.14-.28
$\gamma_{12}$	.12	.06	.004	.02-.23
$\gamma_{32}$	.19	.08	.006	.05-.34
$\gamma_{23}$	.31	.06	.001	.21-.39
$\gamma_{43}$	.09	.06	-.003	-.02-.19
$\gamma_{24}$	.11	.05	.001	.01-.20
$\gamma_{44}$	.16	.07	-.001	.04-.26
$\beta_{31}$	.49	.06	-.000	.36-.61
$\beta_{41}$	.33	.08	-.001	.18-.49
$\beta_{32}$	.18	.06	.003	.05-.30
$\beta_{53}$	.46	.04	.001	.37-.54
$\beta_{63}$	.35	.07	.002	.22-.49
$\beta_{64}$	.22	.06	.003	.12-.33
$\beta_{65}$	.01	.10	-.010	-.23-.17
$R^2_{y1}$	.33	.13	.004	.27-.37
$R^2_{y2}$	.36	.05	-.004	.29-.42
$R^2_{y3}$	.36	.15	-.010	.28-.43
$R^2_{y4}$	.59	.05	-.005	.50-.67
$R^2_{y5}$	.15	.19	-.007	.12-.18
$R^2_{y6}$	.51	.05	-.006	.43-.58

Table 8. Means, standard errors, biases and confidence intervals of the bootstrap replications (model 2)

### 7.5. Discussion

The theoretical model proposed in the current study (in the two versions: model 1 and model 2), in which neighbourhood social connectedness is associated with adolescent civic engagement, was partially validated. Our primary purpose was to evaluate an integrative model linking neighbourhood social connectedness (neighbourhood intergenerational closure, neighbourhood trust and reciprocity, neighbourhood friends and social relationships with neighbours) and different components of youth civic engagement (local and global civic responsibility, civic competencies, civic behaviours), taking into account the mediating effects of attachment to the neighbourhood, non-parental adults' networks (model 1), and peer networks (model 2). In developing an integrative model that links neighbourhood connectedness and adolescent development, we focused on the promotive effect that neighbourhood context can have in fostering youth civic engagement, trying to elucidate some of the pathways responsible for this association.

To date, the study of contexts where the structural disadvantage is not highly concentrated (such as the Italian context), and the associations between neighbourhood resources and outcomes of positive development, have received little empirical attention, if compared to studies examining the detrimental effects of structural disadvantage (Dallago et al., 2009; Romano et al., 2005). However, the interest for the wellness-promotive effect of neighbourhood context is increasing; in particular, there is growing evidence about the association between neighbourhood social features and the development of civic engagement in adolescence. For this reason, currently the main aim of the research in the field is to understand which processes of influence may explain this association (Wilkenfeld et al., 2010). The current study aimed to expand the existing literature on neighbourhood effects and adolescent civic engagement by simultaneously analysing the role of neighbourhood social cohesion (intergenerational closure; trust and reciprocity) and youth personal connectedness in the local community (neighbourhood friends; social relationships with neighbours) in nurturing or hindering adolescent civic engagement.

Based the results of the present study, it is possible to draw some conclusions that are consistent with theoretical models elaborated in neighbourhood research and traditional developmental theories. First, as hypothesized in model 1, in neighbourhoods where there are strong ties between adults and youth (intergenerational closure), adolescents report a higher sense of civic responsibility towards their local community (local civic responsibility), and believe that each resident should contribute to the well-being of the neighbourhood. This result is consistent with the assumptions of the *norms and collective efficacy* model (Leventhal & Brooks-Gunn, 2000), when applied to the development of adolescent civic engagement: when adolescents perceive that in their neighbourhood there are cohesive relationships between youth and adults, who are available to support them and represent positive role models, they can develop civic attitudes through a process of collective socialization (Jencks & Meyer, 1990). The positive association between neighbourhood intergenerational closure and adolescents' sense of responsibility toward their community can be explained by processes identified in traditional developmental theories: in neighbourhoods where adults are available to look after youths, adolescents have the opportunities to interact with people having more experience and knowledge. Thanks to these social interactions, adolescents may have increased opportunities, for instance, to discuss issues regarding their local community (Watts et al., 1999, 2003), to develop perspective taking abilities which allow them to understand which values and behaviours are encouraged in their neighbourhood (Selman, 1980, 2003) and to form a personal set of values underlining the importance of contributing to the well-being of the community (civic identity; Erikson, 1968).

Contrary to what was posited in the model, the levels of intergenerational closure in the neighbourhood were not associated with the adolescents' tendency to create relationships with civically engaged adults, as hypothesized based on previous studies (Buchanan & Bowen, 2008; Chen et al., 2003; Moore, 2003; Paxton et al., 2006). Instead, the mediating effect of the non-parental adults' network was confirmed in relation to trust and reciprocity: the more adolescents report that in their local community people trust and care for each other, the higher is the level of civic responsibility that they perceive among their adults' networks. Consistent to the norms and collective efficacy assumptions (Leventhal & Brooks-Gunn, 2000), in neighbourhoods with high levels of trust and reciprocity, adolescents could be more likely to meet civically responsible adults; this, in turn, may positively influence their civic development, because they can learn civic attitudes through interactions with or observation of civically engaged people (Bandura, 1986), reflecting on civic issues (Watts et al., 1999, 2003), and developing perspective taking and a civic identity (Erikson, 1968; Selman, 1980, 2003). Thus, according to our results, and consistently with the norms and collective efficacy model (Leventhal & Brooks-Gunn, 2000), the influence of neighbourhood social connectedness on adolescent development is transmitted by a more proximal context: the non-parental adults' network. Contrary to our hypotheses, there was not a direct effect of trust and reciprocity on adolescent civic responsibility (local); its effect was fully mediated by non-parental adults' civic engagement.

The same pattern of relationships between neighbourhood social cohesion (intergenerational closure and trust and reciprocity) and local civic responsibility was evaluated in the second version of the model (model 2), obtaining similar results. According to our results, cohesive relationships among people within a neighbourhood increase the likelihood of meeting not only adults who are active in the community (model 1), but also civically engaged peers. Indeed, the more adolescents report high levels of intergenerational closure and trust and reciprocity in their local community, the higher the perceived level of their friends' civic engagement is. In the same way that highly disadvantaged neighbourhoods increase the likelihood of affiliating with deviant peers (as posited in the norms and collective efficacy model; Leventhal & Brooks-Gunn, 2000), in neighbourhoods with high levels of social connectedness, where adults and youth are strongly bound and residents care for each other, adolescents are more likely to have civically engaged peers in their social networks. Similarly to the positive influence that civically engaged adults can have on adolescents' development, by interacting with civically responsible friends, adolescents have the opportunity to develop civic attitudes (Bandura, 1986; Erikson, 1968; Selman, 1980, 2003; Watts et al., 1999, 2003). Considering our results, it's interesting to highlight how the adults' and peers' network can

have a similar role in promoting adolescent civic development, by transmitting the positive influence of neighbourhood social connectedness.

Besides the pathway linking neighbourhood cohesion to adolescent civic responsibility, the proposed theoretical model included a link between adolescent personal connectedness in the neighbourhood and the development of civic attitudes towards their local community. Consistently with what was hypothesized, our results showed that adolescents with strong ties in the local community (with peers and with other neighbours) tend to develop a stronger emotional bond to the neighbourhood (Morrow, 2000; Whitlock, 2007). When adolescents have most of their friends in their neighbourhood of residence, and they know and interact with many people in the local community, they also develop a sense of attachment and belonging to the neighbourhood. A stronger emotional bond to the neighbourhood, in turn, was positively associated with a higher sense of responsibility toward their local community. Indeed, adolescents' place attachment may motivate them to work towards making their neighbourhood of residence a better place (Brown et al., 2003; Manzo & Perkins, 2006), thus giving back to their community the support that they received (Flanagan et al., 2007).

Another path proposed in our theoretical model, that was partly confirmed, is the direct association between adolescent personal connectedness in the neighbourhood (neighbourhood friends, social relationships with neighbours) and perceived competence for civic action. While having friends in one's own neighbourhood was not directly associated to civic competencies, a positive association was found between the level of social connectedness with neighbours and the perception of being competent in the civic domain. Indeed, having many personal ties with neighbours may nurture adolescent confidence in their abilities to actively contribute to the common good, for instance by identifying key people in the local community, or by gathering a group of people to discuss community issues. It is possible that adolescents, in order to feel competent in the civic domain, need to know many people in their neighbourhood, possibly of different ages and backgrounds; on the contrary, having most of their friends living in the same neighbourhood may not be enough to foster adolescent confidence in their abilities to actively contribute to the common good.

Finally, the evaluation of the proposed model confirmed the hypothesized pathways linking different components of adolescent civic engagement. First of all, a positive association between the sense of responsibility toward the local community and civic attitudes to societal issues was found. This result lends support to the statement that civic attitudes may develop gradually, first in relation to the small dimensions of the local community, which may represent a first microcosm of public

life, and then be generalized to the larger society (Flanagan et al., 2007; Selman, 1980, 2003). Furthermore, according to our result, local civic responsibility and perceived competence for civic action may represent precursors of civic behaviours: the more adolescents have a set of beliefs valuing civic engagement, and consider themselves capable of contributing to the common good, the more likely is their decision to actively take part in civic actions (Erikson, 1968; Selman, 1980, 2003; Watts et al., 1999, 2003). The association between attitudes and behaviours was not confirmed for global civic responsibility. This result may be explained by referring to our operationalization of civic behaviours: since the participants were early and middle adolescents, and formal civic participation (e.g., involvement in political organizations) is not common during these developmental stages, we selected behaviours feasible for them, such as organizing a party in the neighbourhood and volunteering in the community. Thus, it is plausible that the sense of civic responsibility toward societal issues, such as environment and human rights, is not associated with civic behaviours mostly circumscribed in the local community.

Overall, the theoretical model explains a significant portion of variance in adolescent civic engagement, that is: 31% of the variance in local civic responsibility (33% in model 2), 43% in global civic responsibility, 10% in competence for civic action (14% in model 2), and 18% in civic behaviours. This finding suggests that neighbourhood social features can be critical factors to consider in understanding adolescent positive development, along with the detrimental effects of neighbourhood disadvantage. In line with the study of Romano et al. (2005), who showed that variation across neighbourhoods in pro-social behaviour was twice as large as the variation in violent behaviour, our findings suggest that future research should also investigate the wellness-promotive effects of neighbourhood features, thus allowing to theorize additional pathways of influence that might encourage positive development.

## **7.6. Limitations and conclusions**

The main limitation of the current study lies in the cross-sectional nature of our data, which does not allow us to interpret the direction of effects and the mediation relations in a causal sense. Although the proposed model has been developed based on theories and empirical evidence, it is possible that civically engaged adolescents actively select their networks of peers and adult acquaintances, become more attached to the neighbourhood and, in general, perceive more cohesion among neighbours and have more opportunities to form social ties within the local community. Research that follows young people over the course of early and middle adolescence is needed to determine the degree to which the influence of contextual factors have a significant impact on later



civic engagement. For this reason, the current study was planned with a longitudinal perspective, and a second wave of data collection with the same participants is planned for October 2012.

Another limitation of the current study consists in the use of a unique source of information, that is, an adolescent self-report questionnaire. Despite the availability of data collected by parents, for the aim of the present study we considered it to be more appropriate to measure the constructs included in the model based on the adolescents' perceptions. However, this approach is vulnerable to same-source bias or the possibility that self-report information for both the outcomes and the neighbourhood features may generate a spurious association between the two. Indeed, the measurement errors in both variables may be correlated; alternatively, the outcomes may affect the perception or report of neighbourhood social connectedness (Diez-Roux, 2007). For instance, adolescents who are highly engaged in civic activities may be more likely than those who are not engaged to report cohesive relationships in the neighbourhood, irrespectively of the actual characteristics of the local community.

A third limitation is related to the geographic area from which our sample was drawn (Padova, a mid-sized city in northeast Italy), that may not generalize to adolescents in other parts of the world, where neighbourhood social connectedness, neighbourhood definition, and expectations for adolescents' behaviour may be different. However, it is important to take into account that the city of Padova was chosen mainly because of its medium size, due to which it has some of the characteristics of a city, and other features that makes it similar to a village, thus representing the most diffuse geographical unit in Italy. The problems in generalizing our findings also derive from the composition of our sample, which included mostly native-born young people and adolescents coming from two-parent families: these characteristics could promote bonding to the neighbourhood and family, thus favouring civic development.

Despite these limitations, the results of the present study hold promise for future research in the field of neighbourhood research and civic development. In particular, our findings give support to the idea that some of the processes occurring within the neighbourhood may be a microcosm of public life and represent the functioning of the civil society (Da Silva et al., 2004; Duke et al., 2009; Flanagan et al., 2007; Kahne & Sporte, 2008; Kegler et al., 2005). In the local community, civic processes may be approachable and easy to understand for adolescents, so that they can learn how to contribute to the common good, and developing a motivation to improve it by creating social ties with peers and adults.

In particular, our findings point out how neighbourhood social connectedness influences adolescents' social networks of peers and adults, favouring the creation of social ties with civically

engaged people. Knowing and interacting with people who firmly believe in civic values and work for improving the local community, then, is a critical aspect for adolescents' civic development, consistent with what is postulated in the theoretical models reviewed. Moreover, establishing cohesive ties with neighbours, and having extensive networks with peers in the neighbourhood, appear as critical factors for the promotion of adolescents' competence for civic action, and for the creation of a strong emotional bond to the local community. Adolescents' attachment to their neighbourhood, in turn, can further nurture their civic responsibility towards the local community, which in turn is associated with a sense of responsibility towards the society at large, and with higher levels of civic participation.

Future ecologically-based investigations, with a focus on the promotion of civic engagement, are needed, not only to reach a better understanding of the psychological mechanisms through which social contexts operate, but also to plan more effective promotion programs based on this empirical evidence (Ogden, Beyers, & Ciairano, 2009). In particular, ecological programs should include the neighbourhood among the contexts of interventions, for instance by creating opportunities to get to know and interact with neighbours (such as local events or common spaces), and by giving young people the possibility to get more involved in community life.

## CHAPTER 8

### THE ASSOCIATION BETWEEN NEIGHBOURHOOD STRUCTURAL AND INSTITUTIONAL FEATURES AND NEIGHBOURHOOD SOCIAL CONNECTEDNESS

*"Tutto ciò che ha valore nella società umana dipende dalle opportunità di progredire che vengono accordate ad ogni individuo. "*

*- Albert Einstein -*

#### **8.1. Introduction**

Research investigating the role of neighbourhood context in influencing adolescent civic engagement has been mostly focused on the social features of the local community. However, there is also some evidence showing the influence of neighbourhood structural characteristics on adolescent civic development.

As illustrated in chapter 2, there is increasing evidence regarding the detrimental effects that neighbourhood structural disadvantage has on a wide range of adolescent outcomes, such as school achievement and emotional and behavioural problems (Leventhal & Brooks-Gunn, 2000). Consistent with these findings, some studies conducted in the last decade have shown that in neighbourhoods characterized by low socioeconomic status, adolescents lag behind their peers who reside in more advantaged areas on civic competencies, attitudes and behaviours. Conversely, neighbourhoods with high socioeconomic status appear to favour the development of civic knowledge and political tolerance (Atkins & Hart, 2002, 2003; Hart et al., 2004; 2005).

Although the understanding of specific mechanisms of influence through which neighbourhood structure may influence adolescent development is still limited, the norms and collective efficacy model (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009) proposes a possible pathway linking neighbourhood structural features to youth outcomes. According to this theoretical framework, the levels of social connectedness within a local community are a function of neighbourhood structural characteristics, such as socioeconomic status, ethnic diversity and residential instability. The norms and collective efficacy model has been developed in line with the social disorganization theory (Park et al., 1967; Shaw and McKay, 1942), which posits that some

structural features of the neighbourhood can hinder the creation of social networks within the community.

These theoretical models lend support to the idea that social relationships within the local community need a “structural basis” to develop, stressing the role of neighbourhood socioeconomic status, ethnic composition and residential instability in promoting or hindering the creation of social ties. Considering the findings of our previous study, and in line with recent literature (Da Silva et al., 2004; Duke et al., 2009; Flanagan et al., 2007; Kahne & Sporte, 2008; Kegler et al., 2005) showing the importance of neighbourhood social connectedness for adolescent civic development, it is critical to understand which factors can shape social relationships within the local community.

## **8.2. Neighbourhood structure, physical and social disorder, and institutional resources as predictors of social connectedness in the community**

As anticipated in the previous section, the social disorganization theory (Park et al., 1967; Shaw and McKay, 1942), and the norms and collective efficacy model (Leventhal & Brooks-Gunn, 2000), postulate that in neighbourhoods characterized by high levels of structural disadvantage (e.g., low levels of socioeconomic status, high levels of residential instability, high ethnic diversity), the establishment of social networks among residents can be extremely difficult.

According to these theoretical models, some characteristics of the neighbourhood structure influence the ability of community members to establish cohesive relationships and create a shared set of socially accepted norms that promote the willingness to intervene on behalf of the common good. In particular, high levels of concentrated poverty and ethnic diversity in the neighbourhood represent two of the main obstacles for the creation of strong social ties among residents; indeed, these structural features undermine levels of perceived trust towards other neighbours, thus reducing the social interactions and relationships among residents within the neighbourhood.

A number of studies found support for the association between neighbourhood structural disadvantage and social connectedness among residents (e.g., social control, collective efficacy, social cohesion). Neighbourhoods that have low levels of socioeconomic status and that are highly heterogeneous in terms of ethnic composition, appear to hinder social interactions among residents, making the creation of social networks within the community difficult. These findings have been reported both in studies with adult populations (Kruger et al., 2007; Raudenbush & Sampson, 1999; Sampson et al., 1999; Pattilo, 1998; Weden et al., 2008) and in studies with adolescents (Cantillon, 2006; Cantillon, Davidson, & Schweitzer, 2003; Chung & Steinberg, 2006; Rankin & Quane, 2002; Tolan et al., 2003; Wikrama & Bryant, 2003).

Another aspect of neighbourhood structure which previous studies pointed out as a possible determinant of the quality and quantity of social relationships has to do with the size of the community. Prior studies, for example, have explored how the size of a community (e.g., rural area, town, small city, and large city) affects social bonding among residents (Fischer, 1995; Ingram, 1993; Tittle 1989; Wilson 1991), showing how the small dimensions of a community makes social interactions easier, thus promoting cohesive relationships. Consistent with these results, studies conducted with adolescents found that young people living in small towns tend to develop stronger relationships with neighbours, compared to their peers residing in bigger cities (Albanesi et al., 2007). According to these studies, smaller communities favour social interactions among residents, which in turn constitute the basis for establishing strong social bonds characterized by trust and reciprocity.

Besides these structural features, which describe a geographical unit in terms of demographic composition of the population, other neighbourhood characteristics have been investigated as factors which influencing the social connectedness among people within a local community. Different studies, for instance, have shown an association between neighbourhood physical and social disorder, and the quality of social relationships within the community. As illustrated before (see chapter 1), physical disorder involves signs of incivilities and decay such as abandoned buildings, broken streetlights, graffiti and litter on the street (Perkins & Taylor, 1996; Perkins et al., 1992), whereas social disorder refers to events such as public drinking, prostitution, drug dealing, and vandalism (Ross & Jang, 2000; Sampson & Raudenbush, 1999).

Neighbourhood disorder has been investigated both as a consequence of weak social bonds, and as an obstacle to the creation of cohesive ties among residents. According to the norms and collective efficacy model (Leventhal & Brooks-Gunn, 2000), for example, the levels of disorder in the local community are conceptualized as a consequence of the low levels of collective efficacy, that is, the residents' inability to establish shared norms within the neighbourhood (Fauth et al., 2005; Freisthler et al., 2005; Taylor 1996; Sampson & Raudenbush 1999).

However, other studies have conceptualized neighbourhood physical and social disorder as key determinants of social connectedness in the local community. Indeed, high levels of disorder can weaken social ties with neighbours, by causing a physical and psychological withdrawal from the life of the local community (Bursik & Grasmick, 1993). As a consequence, a number of studies have shown that the presence of signs of disorder in the neighbourhood can negatively impact on the capacity of the community to promote a set of socially accepted norms, and to ensure that

residents' behaviour respects these social norms (collective efficacy and informal social control) (Bursik & Grasmick, 1993; Oh, 2003; Skogan, 1990).

In addition to structural features and signs of disorder, the literature on neighbourhood effects has also pointed out an association between institutional resources and social connectedness among residents. This association has been already pointed out within the social disorganization theory, according to which the capacity of residents to collaborate on behalf of the common good, promoting a set of socially accepted norms (collective efficacy), affects the quality of the formal institutions of the neighbourhood. Indeed, the quality of social and health services, schools and youth organizations are thought to be influenced by the ability of community members to work together for common goals and values, establishing formal and informal institutions that promote and enforce these values by regulating behaviour (Sampson et al., 2002).

However, if it's true that the social connections between neighbours can influence institutional resources, there is also empirical evidence suggesting that the presence of some institutional resources, such as spaces and opportunities for activities, can strongly impact the level of social connectedness in the neighbourhood (Anthony & Nicotera, 2008; Quane & Rankin, 2006). The availability of meeting places and community organizations, in particular, has a critical role in binding people together, allowing them to get to know each other and to develop supportive networks with other residents.

Most of the existing literature on neighbourhood effects, including the studies investigating the association between structural and social features of the local community, has been conducted in the U.S. (Dallago et al., 2009; Vieno et al., 2010). The North-American context is characterized by a pronounced concentration of structural disadvantage, so that great attention has been paid to the examination of how neighbourhoods with different structural characteristics (especially in terms of neighbourhood SES and ethnic diversity) influence social processes within the community.

In contexts where the concentration of disadvantage is not so pronounced (such as the Italian context) however, the role of neighbourhood structural features in shaping social processes within the neighbourhood may be less marked. Indeed, in these contexts the variability in structural features across neighbourhoods is lower, if compared with the North-American context. As a consequence, it is plausible that other neighbourhood features concur in shaping social processes in the local community. Consistent with the empirical evidence discussed above, the level of neighbourhood physical and social disorder, as well as the availability of institutional resources, may influence the levels of social connectedness within the local community.

For these reasons, the current study has two main aims:

- Evaluating the suitability of the role of neighbourhood structural features (neighbourhood wealth, percentage of immigrants, population density) in the Italian context, where the concentration of disadvantage is not as pronounced as in the U. S., in order to determine whether they have an impact on neighbourhood social connectedness (neighbourhood intergenerational closure, neighbourhood trust and reciprocity, neighbourhood friends and social relationships with neighbours);

- Evaluating whether, along with structural characteristics, the level of neighbourhood physical and social disorder and the availability of institutional resources (opportunities for activities and meeting places) are associated with the level of social connectedness among people in the neighbourhood (neighbourhood intergenerational closure, neighbourhood trust and reciprocity, neighbourhood friends and social relationships with neighbours).

All the hypothesized predictors of social connectedness are conceptualized and measured at the neighbourhood level, in order to estimate their influence using more objective measures. In particular, regarding structural features, percentage of immigrants and population density are measured employing administrative data. Neighbourhood wealth, on the other hand, has been measured using participants' perception of the socioeconomic level of people residing in the local community, because data on the families' socioeconomic conditions in Italy are not accessible for research purposes; adolescents' perceptions have been aggregated at the neighbourhood level. Similarly, physical and social disorder and the availability of activities and meeting places have been measured employing participants' subjective perceptions, and aggregating responses to obtain the same measures at the neighbourhood level.

Identifying which structural and institutional features of the local community might shape the social connectedness among people in the neighbourhood is critical in order to understand which factors influence social relationships in the local community, which in turn represent important antecedents of adolescent civic development.

### **8.3. METHODS**

#### ***8.3.1. Participants***

Data for the present study were drawn from the same research project described in the previous chapter. Thus, participants involved in the study were 403 adolescents (47.9% male), from 38 different neighbourhoods of a mid-sized Italian city (Padova). However, since some of the neighbourhood features were measured by employing aggregate measures, similarly to previous studies (Dupéré & Perkins, 2007; How, 1998), we excluded neighbourhoods where there were less

than 4 respondents (Granze, Montà, San Lazzaro and Stanga). Analyses were run on a final sample of 389 participants coming from 31 different neighbourhoods of Padova. The sub-sample excluded from the analysis does not differ significantly from the final sample in terms of gender distribution ( $\chi^2(1) = .03$ , n.s.) or mean age ( $F(1,397) = .04$ , n.s.).

### **8.3.2. Measures**

#### ***Measures of neighbourhood structure, physical and social disorder and institutional resources***

*Neighbourhood population density.* The population density in each neighbourhood examined was measured employing administrative data, drawn from the Annual Statistical Report of the Padova Municipality (Comune di Padova, 2009).

*Percentage of immigrants in the neighbourhood.* Ethnic composition of each neighbourhood was measured through the percentage of immigrants residing in Padova, using data from the Annual Statistical Report of the Padova Municipality (Comune di Padova, 2009).

*Perceived wealth in the neighbourhood.* Participants' subjective perception of wealth was used as a measure of the socioeconomic level of the neighbourhoods. Participants responded to a single item asking them how well-off the people living in their neighbourhood were on a 5-point scale, ranging from (1) "not at all well off" to (5) "very well off". This measure was widely tested in the Health Behavior in School-aged Children study (Currie, Samdal, Boyce, & Smith, 2002). Participants' responses have been aggregated at the neighbourhood level, in order to obtain the average perception of adolescents living in a given neighbourhood.

*Neighbourhood physical and social disorder.* The level of physical and social disorder in the neighbourhood was measured employing an 8-item scale, adapted from Perkins et al. (1990), asking participants the degree to which some of the following signs of disorder were appropriate to describe their own neighbourhood: "crime, robberies", "fighting and brawls", "abandoned buildings", "graffiti or incivilities", "drug dealing". Item responses range from (1) "not at all" to (4) "a lot"; a single measure of physical and social disorder in the neighbourhood was created by averaging participants' responses to the items, and by aggregating responses at the neighbourhood level, with a higher score representing a higher level of disorder.

*Neighbourhood perceived opportunities.* Neighbourhood opportunities were measured using the "Opportunity for involvement" subscale of the SoC-A (Cicognani et al., 2006), comprising 7 items about the availability and quality of activities and meeting places within adolescents' local communities. "This neighbourhood gives me the opportunity to do many different things" and "In



this neighbourhood, there are enough opportunities to meet other boys and girls” are sample items. Internal consistency of the scale was good ( $\alpha = .92$ ); responses, that ranged from (1) “completely disagree” to (5) “completely agree”, were averaged for the measure of neighbourhood opportunities, and aggregated at the neighbourhood level.

### ***Demographics***

Adolescents reported their gender, date of birth and family socio-economic status, which was measured by the Family Affluence Scale (FAS), a four-item measure developed and validated in the HBSC study (Boyce, Torsheim, Currie, & Zambon, 2006). The scale includes four indicators of family affluence: family car ownership, unshared rooms, number of computers at home, and times spent on holiday in the last 12 months. Responses were summed up in a total score ranging from 0 to 9, with a higher score indicating a higher family socioeconomic status.

### ***Dependent variables***

Neighbourhood intergenerational closure, trust and reciprocity, neighbourhood-based friendship and social relationships with neighbours were measured employing the same measures illustrated in the previous chapter (see the section *Measures*).

### ***8.3.3. Analytic approach***

Data at the neighbourhood level were obtained by aggregating perceived neighbourhood wealth, physical and social disorder, and opportunities, as reported by adolescent respondents. For population density and ethnic composition, in contrast, administrative data drawn from the Annual Statistical Report (Comune di Padova, 2009) were already available at the neighbourhood level.

Since these kinds of data are inherently clustered, with adolescents having been sampled within neighbourhoods, we used the multilevel regression technique of hierarchical linear modelling (HLM, Raudenbush & Bryk, 2002). A brief description of the statistical models used is provided in the analysis section.

An independent model for each one of the dependent variables (intergenerational closure, trust and reciprocity, neighbourhood friends and social relationships with neighbours) was run.

The within-neighbourhood (level 1) model estimates the influence of perceived physical and social disorder and opportunities in the neighbourhood on neighbourhood intergenerational closure, trust and reciprocity, neighbourhood-based friends and social relationships with neighbours for adolescent  $i$  in neighbourhood  $j$ , controlling for gender, age and family socioeconomic status (FAS). Perceived disorder and neighbourhood opportunities were centred around the neighbourhood mean, entailing that the estimate of neighbourhood-mean measures are unadjusted for between

neighbourhood variation in these variables; this way it is possible to examine the between-neighbourhood influence of the aggregates of these variables at level 2 (Raudenbush & Bryk, 2002). The individual-level model includes two predictors and three demographic control variables:

$$Y_{ij} = \beta_{0j} + \beta_{1j}(\text{age}) + \beta_{2j}(\text{gender}) + \beta_{3j}(\text{FAS}) + \beta_{4j}(\text{Neigh. DISORDER}) + \beta_{5j}(\text{Neigh. OPPORTUNITIES}) + \varepsilon_{ij}$$

We considered the contextual effects on neighbourhood social connectedness as a function of neighbourhood population density, % of immigrants in the neighbourhood, neighbourhood wealth, neighbourhood disorder, and neighbourhood opportunities.

We explored possible effects on the adjusted neighbourhood log-odds of social connectedness (intergenerational closure, trust and reciprocity, neighbourhood friends and social relationships with neighbours),  $\gamma_{0j}$ ; all predictors were grand mean centred.

$$\gamma_{0j} = \beta_{0j} = \gamma_{00} + \gamma_{01}(\text{Neigh. DENS}) + \gamma_{02}(\text{Neigh. IMMIGRANTS}) + \gamma_{03}(\text{MEANWEALTH}) + \gamma_{04}(\text{MEANDISORDER}) + \gamma_{05}(\text{MEANOPPORTUNITIES}) + u_{0j}$$

## 8.4. Results

### *Preliminary analyses.*

Descriptive statistics for the variables on each level are shown in Table 9. On average, the reported levels of neighbourhood social connectedness among participants were high; the total sample means ranged from 3.08 (in trust and reciprocity) to 3.29 (in intergenerational closure). However, there was also a wide variation in adolescents' reports of their neighbourhoods' social connectedness, with standard deviations ranging from .64 in trust and reciprocity to .98 in neighbourhood-based friendship.

Variable	N	Descriptive
<i>Dependent Variables</i>		
Neighbourhood intergenerational closure	389	Mean = 3.29 (SD = .72), Range = 1-5
Neighbourhood trust and reciprocity	389	Mean = 3.08 (SD = .64), Range = 1-4.75
Neighbourhood friends	389	Mean = 3.21 (SD = .98), Range = 1-5
Social relationships with neighbours	389	Mean = 3.19 (SD = .87), Range = 1-5
<i>Independent Variables</i>		
<i>Individual Level</i>		
Gender	389	male (190, 48.2%); female (204, 51.8%)
Age	389	Mean = 13.60 (SD = 1.64), Range = 11-15
FAS	389	Mean = 5.85 (SD = 1.66), Range = 1-9
Physical and social disorder	389	Mean = 1.68 (SD = .54), Range = 1-4
Perceived opportunities	389	Mean = 3.03 (SD = .90), Range = 1-5
<i>Neighbourhood Level</i>		
Population density	31	Mean = 3706.42 (SD = 2423.01), Range = 559-10061
% Immigrants	31	Mean = 10.81 (SD = 4.05), Range = 4.63-20.00
Neighbourhood wealth	31	Mean = 3.28 (SD = .23), Range = 2.89-3.91
Physical and social disorder	31	Mean = 1.65 (SD = .19), Range = 1.29-2.09
Neighbourhood opportunities	31	Mean = 2.97 (SD = .32), Range = 2.20-3.55

*Table 9. Descriptive statistics for neighbourhood social connectedness (intergenerational closure, trust and reciprocity, friends, relationships with neighbours) and neighbourhood structural and institutional resources (population density, ethnic composition, neighbourhood wealth, disorder, opportunities)*

### *Within- and between-neighbourhood analyses.*

As stated above, an independent model for each one of the dependent variables measuring neighbourhood social connectedness (intergenerational closure, trust and reciprocity, neighbourhood friends and social relationships with neighbours) was evaluated. The within- and between-neighbourhood HLM models predicting the 4 different components of neighbourhood

social connectedness are shown in Tables 10-13. The four models tested included the same individual- and neighbourhood-level predictors.

The within-neighbourhood model includes two predictors (perceived physical and social disorder in the neighbourhood, and neighbourhood opportunities) and three demographic control variables (gender, age, FAS), while the between-neighbourhood model includes neighbourhood population density, % of immigrants in the neighbourhood, neighbourhood wealth, neighbourhood disorder and neighbourhood opportunities as predictors of neighbourhood social connectedness.

A preliminary step in HLM involves fitting an unconditional model and examining the variance of the dependent variable, partitioning it into individual- and neighborhood-level components. In the first model (Table 10), predicting neighbourhood intergenerational closure, 93.62% of the variation in the dependent variable lies at the individual level, 6.38% between-neighborhood. Although the estimated neighborhood-level variances of the dependent variable are statistically significant ( $\chi^2_{(30)} = 56.03$ ,  $p < .01$ ), and of sufficient size to proceed with multilevel analyses, it is clear that there is much greater variability between individuals within neighbourhood than between neighbourhoods. The estimated reliability with which neighborhoods can be distinguished on the dependent variable is .43. At the neighbourhood level, population density and neighbourhood opportunities were associated with adolescents' perceptions of intergenerational closure: a higher population density was associated with lower levels of intergenerational closure, whereas higher levels of opportunities for activities and meeting places were related to higher levels of intergenerational closure. At the individual level, higher age and neighbourhood disorder were negative predictors of intergenerational closure, while perceived neighbourhood opportunities were positively related to adolescents' perceptions of intergenerational ties within the local community. The final model explains 25.8% of the individual-level variance and 62.3% of the variance at the neighbourhood level (the neighbourhood-level variance in intergenerational closure was totally explained by the examined predictors).

<i>Fixed effects</i>	<i>Coeff.</i>	<i>SE</i>	<i>T-Ratio</i>	<i>df</i>	<i>p-value</i>
<i>Neighbourhood level: Intercept <math>\gamma_{00}</math></i>	3.291	0.178	18.49	25	.000
Population density	-0.000	0.000	-2.18	25	.039
% Immigrants	-0.016	0.010	-1.61	25	.118
Neighbourhood wealth	-0.130	0.096	-0.69	25	.187
Ph. and Soc. disorder	-0.075	0.228	-0.36	25	.743
Neighbourhood opportunities	0.467	0.143	3.32	25	.003
<i>Individual Level</i>					
Gender (female)	-0.004	0.073	-0.05	378	.959
Age	-0.047	0.023	-2.03	378	.042
FAS	0.023	0.020	1.15	378	.253
Ph. and Soc. disorder <sup>#</sup>	-0.306	0.080	-3.81	378	.000
Perceived opportunities <sup>#</sup>	0.311	0.042	7.35	378	.000

# neighbourhood-mean centred

*Final estimation of variance components:*

<i>Random effect</i>	<i>SD</i>	<i>Var. Component</i>	<i>df</i>	<i>Chi-Square</i>	<i>p-value</i>
INTERCEPT, U0	0.112	0.013	25	36.68	.06
Level-1, R	0.604	0.365			
Level 2 Intraclass $r = 0.0638$ , $p = .003$ (6.38 % of total variance in IC is due to differences between neighbourhoods)					
Model explains 25.8% of Level 1 (individual) variance, and 62.3% of Level 2 (neighbourhoods) variance					

*Table 10. Hierarchical linear model predicting neighbourhood intergenerational closure.*

In the second model (see Table 11), predicting neighbourhood adolescents' perception of trust and reciprocity among people in the neighbourhood, a lower portion of variance (4.14%) was due to differences between neighbourhoods, as compared with the previous model ( $\chi^2_{(30)} = 45.54$ ,  $p < .05$ ). The estimated reliability with which neighborhoods can be distinguished on the dependent variable is .33. At the neighbourhood level, the percentage of immigrants in the local community was negatively related to neighbourhood trust and reciprocity, while, similarly to the results of the previous model, neighbourhood opportunities were positively associated with adolescents' perceptions of trust and reciprocity. Furthermore, neighbourhood-level perception of physical and social disorder was a negative predictor of neighbourhood trust and reciprocity, meaning that higher levels of disorder in the neighbourhood correspond to lower levels of perceived trust and reciprocity in the local community. At the individual level, no demographic variables showed a significant effect on neighbourhood trust and reciprocity; similarly to the previous model, higher levels of perceived physical and social disorder were associated with lower levels of trust and reciprocity, whereas perceived neighbourhood opportunities were a positive predictor of adolescents' perceptions of trust and reciprocity. The final model explains 35.0% of the individual-level variance

and 99.7% of the neighbourhood-level variance in trust and reciprocity, which was totally explained by the examined predictors.

<i>Fixed effects</i>	<i>Coeff.</i>	<i>SE</i>	<i>T-Ratio</i>	<i>df</i>	<i>p-value</i>
<i>Neighbourhood level: Intercept <math>\gamma_{00}</math></i>	2.968	0.130	22.89	25	.000
Population density	-0.000	0.000	-1.15	25	.260
% Immigrants	-0.022	0.006	-3.53	25	.002
Neighbourhood wealth	-0.112	0.126	-0.89	25	.383
Ph. and Soc. disorder	-0.291	0.132	-2.21	25	.037
Neighbourhood opportunities	0.419	0.787	5.32	25	.000
<i>Individual Level</i>					
Gender (female)	-0.002	0.040	-0.06	378	.955
Age	-0.008	0.015	0.56	378	.578
FAS	0.014	0.012	1.15	378	.249
Ph. and Soc. disorder <sup>#</sup>	-0.356	0.084	-4.22	378	.000
Perceived opportunities <sup>#</sup>	0.331	0.036	9.15	378	.000

# neighbourhood-mean centred

*Final estimation of variance components:*

<i>Random effect</i>	<i>SD</i>	<i>Var. Component</i>	<i>df</i>	<i>Chi-Square</i>	<i>p-value</i>
INTERCEPT, U0	0.007	0.000	25	17.02	> .500
Level-1, R	0.506	0.256			
Level 2 Intraclass $r = 0.0414$ , $p = .034$ (4.14 % of total variance in TR is due to differences between neighbourhoods)					
Model explains 35.0% of Level 1 (individual) variance, and 99.7% of Level 2 (neighbourhoods) variance					

*Table 11. Hierarchical linear model predicting neighbourhood trust and reciprocity.*

Regarding adolescents' personal connectedness within the neighbourhood, Tables 12 and 13 show the results of the models predicting neighbourhood-based friendship and social relationships with neighbours. In the former, 4.48% of the total variance in neighbourhood friends is due to differences between neighbourhoods ( $\chi^2_{(30)} = 50.45$ ,  $p < .05$ ), while the estimated reliability with which neighborhoods can be distinguished on the dependent variable is .34. At the neighbourhood level, coherent with the previous results, a higher percentage of immigrants constituted a negative predictor of adolescents' tendency to establish social ties with peers in the local community, whereas neighbourhood opportunities were positively related to neighbourhood-based friendship. Moreover, in contrast with the results of the previous models, higher levels of disorder in the neighbourhood were associated with a higher tendency of having friends in the local community. At the individual level, the only significant predictor of neighbourhood friends was the adolescents' perception of opportunities within the neighbourhood: the more young people report that in their

<i>Fixed effects</i>	<i>Coeff.</i>	<i>SE</i>	<i>T-Ratio</i>	<i>df</i>	<i>p-value</i>
<i>Neighbourhood level:</i> Intercept $\gamma_{00}$	3.174	0.286	11.11	25	.000
Population density	-0.000	0.000	-1.03	25	.314
% Immigrants	-0.023	0.011	-2.12	25	.043
Neighbourhood wealth	-0.186	0.135	-1.38	25	.181
Ph. and Soc. disorder	0.596	0.251	2.38	25	.025
Neighbourhood opportunities	0.821	0.134	6.13	25	.000
<i>Individual Level</i>					
Gender (female)	-0.167	0.092	-1.81	378	.071
Age	0.021	0.031	0.66	378	.506
FAS	0.031	0.027	1.13	378	.261
Ph. and Soc. disorder <sup>#</sup>	0.104	0.082	1.27	378	.205
Perceived opportunities <sup>#</sup>	0.547	0.047	11.71	378	.000

# neighbourhood-mean centred

*Final estimation of variance components:*

<i>Random effect</i>	<i>SD</i>	<i>Var. Component</i>	<i>df</i>	<i>Chi-Square</i>	<i>p-value</i>
INTERCEPT, U0	0.025	0.001	25	27.31	.34
Level-1, R	0.821	0.674			
Level 2 Intraclass $r = 0.0448$ , $p = .011$ (4.48 % of total variance in NF is due to differences between neighbourhoods)					
Model explains 10.3% of Level 1 (individual) variance, and 98.6% of Level 2 (neighbourhoods) variance					

*Table 12. Hierarchical linear model predicting neighbourhood-based friendship.*

local community there are opportunities for activities and meeting places, the more they tend to have friends in their neighbourhoods. In the final model, 10.3% of the individual-level variance, and

98.6% of the variance at the neighbourhood level, was explained; the contextual-level variance in neighbourhood friends was completely explained by the analyzed predictors.

In the last model (see Table 13), predicting adolescents' personal ties with neighbours, 8.32% of the total variance is due to differences across neighbourhoods ( $\chi^2_{(30)} = 64.30$ ,  $p < .001$ ) (the estimated reliability with which neighborhoods can be distinguished on the dependent variable is .49). In line with the results of the first model, at the neighbourhood level a higher population density corresponded to lower levels of adolescents' personal relationships with neighbours. Moreover, coherent to all the tested models, neighbourhood opportunities were positively related to adolescents' tendency to develop social ties with neighbours. At the individual level, adolescents reporting higher levels of neighbourhood opportunities also reported having cohesive relationships with their neighbours. The final model explains 10.3% of the individual-level variance and 99.3% of the neighbourhood-level variance in adolescents' social relationships with neighbours; the

variation across neighbourhoods of the dependent variable was totally explained by the examined predictors.

<i>Fixed effects</i>	<i>Coeff.</i>	<i>SE</i>	<i>T-Ratio</i>	<i>df</i>	<i>p-value</i>
<i>Neighbourhood level:</i> Intercept $\gamma_{00}$	2.882	0.153	18.78	25	.000
Population density	-0.000	0.000	-4.13	25	.000
% Immigrants	-0.009	0.011	-0.77	25	.447
Neighbourhood wealth	-0.164	0.184	-0.89	25	.381
Ph. and Soc. disorder	0.275	0.218	1.26	25	.218
Neighbourhood opportunities	0.580	0.148	3.92	25	.001
<i>Individual Level</i>					
Gender (female)	0.025	0.084	0.29	378	.678
Age	0.038	0.025	1.54	378	.123
FAS	0.020	0.025	0.82	378	.414
Ph. and Soc. disorder <sup>#</sup>	-0.051	0.066	-0.78	378	.437
Perceived opportunities <sup>#</sup>	0.312	0.050	6.21	378	.000

# neighbourhood-mean centred

*Final estimation of variance components:*

<i>Random effect</i>	<i>SD</i>	<i>Var. Component</i>	<i>df</i>	<i>Chi-Square</i>	<i>p-value</i>
INTERCEPT, U0	0.020	0.000	25	26.76	.37
Level-1, R	0.793	0.629			
Level 2 Intraclass $r = 0.0832$ , $p = .000$ (8.32 % of total variance in PR is due to differences between neighbourhoods)					
Model explains 10.3% of Level 1 (individual) variance, and 99.3% of Level 2 (neighbourhoods) variance					

*Table 13. Hierarchical linear model predicting social relationships with neighbours.*



## 8.5. Discussion

The current study partly confirmed the assumption included in the norms and collective efficacy model (Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009), according to which neighbourhood structural features shape the social processes occurring within the local community. In particular, our findings showed that the association between neighbourhood structural characteristics and social connectedness also appears in contexts where the concentration of disadvantage is not as pronounced as in North America, where most studies have been conducted (Dallago et al., 2009; Vieno et al., 2010). However, the results of the current work pointed out that other features that less investigated in neighbourhood research, impact the quantity and quality of social relationships in the local community: the availability of institutional resources, more specifically the presence of opportunities for activities and meeting places in the neighbourhood, and the levels of physical and social disorder within the community.

Given that, in neighbourhood research, data are inherently clustered, the present study employed a multilevel perspective, which allowed the estimation of the effect of structural characteristics on social connectedness at the neighbourhood level (drawn from administrative data) and the influence of institutional features and disorder both at the individual and at the contextual level. As expected from previous multilevel analyses of neighbourhood effects (Perkins & Long, 2002), neighbourhood-level variance in social connectedness was modest, ranging from 4.1 to 8.3 %, but it was fully explained by the neighbourhood predictors under investigation.

Regarding the first aim of the study, investigating the role of neighbourhood structural features as predictors of neighbourhood social connectedness (neighbourhood intergenerational closure, neighbourhood trust and reciprocity, neighbourhood friends and social relationship with neighbours), our results supported the role of some neighbourhood structural characteristics in shaping social processes within the local community. In particular, high ethnic diversity was associated with lower levels of perceived trust and reciprocity among residents and a lower tendency to establish social networks with peers in the same neighbourhood. Consistently with the social disorganization theory (Park et al., 1967; Shaw and McKay, 1942), and the norms and collective efficacy model (Leventhal & Brooks-Gunn, 2000), in neighbourhoods characterized by higher levels of ethnic diversity, which in the literature is defined as a sign of structural disadvantage, the establishment of social networks among residents may be more difficult. Indeed, a higher percentage of immigrants in the neighbourhood may undermine the levels of perceived trust towards other neighbours, thus reducing the levels of mutual help and support among residents and adolescents' tendency to have friends within the local community. This result confirmed the role of

neighbourhood structural disadvantage, in terms of ethnic composition, in the Italian context as well, where the concentration of disadvantage is not as pronounced as in the North-American context: consistent with previous findings (Cantillon, 2006; Cantillon et al., 2003; Chung & Steinberg, 2006; Pattillo, 1998; Rankin & Quane, 2002; Raudenbush & Sampson, 1999; Tolan et al., 2003; Weden et al., 2008; Wikrama & Bryant, 2003), in neighbourhoods with a high ethnic diversity, the creation of social relationships based on norms of trust and reciprocity is lower, like adolescents' tendency to have friends in their own neighbourhood.

Among the neighbourhood structural characteristics investigated, the population density in different neighbourhoods was associated with different components of social connectedness. Consistent with studies showing that people living in small towns tend to develop stronger relationships with neighbours, compared to people residing in bigger cities (Albanesi et al., 2007; Fischer 1977, 1995; Ingram, 1993; Tittle 1989; Wilson 1991), our findings pointed out that in neighbourhoods characterized by a higher population density, the levels of intergenerational closure are lower, as well as the adolescents' personal connectedness with neighbours. According to our results, less populated neighbourhoods tend to favour the establishment of cohesive relationships among residents, by making social interactions in the local community easier.

Contrary to that which was hypothesized, and in contrast with most of the literature on neighbourhood effects (see for example, Boyle et al., 2007; Connel & Halpern-Felsher, 1997; Leventhal et al., 2009), neighbourhood wealth was not associated with the level of social connectedness in the local community. This finding may be explained by the peculiarities of the context where the research has been conducted, or by methodological aspects of the study. First, the lower tendency of socioeconomic disadvantage being concentrated in specific areas of cities, characterizing the Italian context, may be responsible of this finding: since the variation in socioeconomic level across the neighbourhoods of Padova is not highly pronounced, neighbourhood wealth has no effect on social processes occurring within the community. Alternatively, the result may be related to the use of participants' subjective perception of residents' wealth as a proxy of neighbourhood socioeconomic status, deriving from the impossibility to obtain objective measures such as the income level (not allowed in Italy for privacy issues). Although, in order to obtain a more objective measure, participants' subjective perceptions have been aggregated at the neighbourhood level, thus estimating the effect of the average perception of wealth in the local community, this measure can only be considered as a proxy of neighbourhood socioeconomic status; as a consequence, the lack of association between neighbourhood wealth and the four

components of social connectedness under investigation may derive from this methodological choice, and results have to be interpreted with caution.

The study also aimed to examine whether, along with structural features, the level of physical and social disorder and the availability of institutional resources (opportunities for activities and meeting places) influence the level of social connectedness among people in the neighbourhood. Although these characteristics have not been widely studied as predictors of neighbourhood social connectedness, there is empirical and theoretical evidence supporting the potential role of neighbourhood disorder and institutional resources in shaping social relationships in the local community (Bursik & Grasmick, 1993; Anthony & Nicotera, 2008). Considering the peculiarities of the Italian context, where the variation in structural features across neighbourhood is not very pronounced, we hypothesized that the levels of disorder and opportunities for activities and meeting places in the local community influence the creation of social relationships in the neighbourhood.

According to our results, the availability of meeting places and opportunities for activities in the neighbourhood was the best predictor of social connectedness within the local community. Indeed, this represents the only feature showing a positive impact on all the four components of neighbourhood social connectedness: in local communities where adolescents, on average, report higher levels of opportunities to have fun and meet other people in the neighbourhood, they also report higher levels of social cohesion among residents (intergenerational closure, trust and reciprocity) and higher levels of personal connectedness with people (neighbourhood-based friendship, social relationships with neighbours). In line with previous research (Anthony & Nicotera, 2008; Quane & Rankin, 2006), the presence of some institutional resources, such as spaces and opportunities for activities, has a critical role in binding people together, allowing residents in a neighbourhood to know each other and to develop supportive networks with other people. The association between neighbourhood institutional resources and social connectedness has been already postulated in the social disorganization theory (Park et al., 1967; Shaw and McKay, 1942), and subsequently within the institutional resources model (Leventhal & Brooks-Gunn, 2000); according to these theories, the quality of institutional resources are influenced by the level of social connectedness within the neighbourhood and the ability of community members to work together for common goals and values, establishing formal and informal institutions that promote and enforce these values by regulating behaviour (Sampson et al., 2002). Our findings support an inverse relationship among these features, with the availability of meeting places and activities in the neighbourhood influencing the level of social connectedness among residents. It is

plausible that the relationship between these neighbourhood features is not unidirectional, but characterized by a set of reciprocal influences.

Besides the positive effect of the aggregate perceptions of neighbourhood opportunities, that is, the average perception of the availability of activities and meeting places of people residing in a given neighbourhood, perceived opportunities were also positively associated with social connectedness at the individual level. Participants who reported that in their neighbourhood there are many opportunities to have fun and meet other people, also reported higher levels of social cohesion among residents in their neighbourhood (intergenerational closure, trust and reciprocity) and a stronger personal connectedness with people in the local community (neighbourhood friends, social relationships with neighbours). It is possible that, regardless of the real opportunities which exist within the neighbourhood, people who know and more frequently hang out in the local community, have more occasions to see other residents interacting and to personally interact and create relationships with neighbours; this could explain the higher levels of social cohesion and personal connectedness reported by participants who perceive themselves to live in a neighbourhood with many opportunities for activities and social interactions.

Finally, our results show an association between physical and social disorder in the neighbourhood and the level of social connectedness among residents. More specifically, in line with previous studies showing that the presence of signs of disorder in the neighbourhood can negatively impact the establishment of strong social networks among people in the local community (Bursik & Grasmick, 1993; Joong-Hwan Oh, 2003; Quane & Rankin, 2006; Skogan 1990), in the current study higher levels of disorder in the community were associated to lower levels of perceived trust and reciprocity among people: in neighbourhood where, on average, participants reported more signs of physical and social disorder, individuals also tend to report a lower tendency to help each other and a lower perceived trust towards other neighbours. Despite the fact that neighbourhood disorder, similarly to institutional resources, is usually investigated as a consequence of weak social ties in the community, and the residents' inability to establish shared norms within the neighbourhood (Fauth et al., 2005; Freisthler et al., 2005; Leventhal & Brooks-Gunn, 2000; Sampson & Raudenbush 1999; Taylor 1996), our findings are in line with studies conceptualizing neighbourhood physical and social disorder as key determinants of social connectedness in the local community. Indeed, high levels of disorder weaken social ties within the neighbourhood, by lowering the levels of perceived trust and causing a physical and psychological withdrawal from the life of the local community (Bursik & Grasmick, 1993; Joong-Hwan Oh, 2003; Skogan 1990). Also in this case, it is likely that neighbourhood disorder and neighbourhood

cohesion mutually influence each other, in a cycle where physical and social incivilities weaken social relationships among residents, who in turn become unable to promote a set of socially accepted norms and monitor residents' behaviour, making the proliferation of signs of disorder more likely.

In addition to the negative effect of the aggregate perceptions of neighbourhood disorder, that is, the average perception of the degree to which different signs of disorder constitute a problem within a given neighbourhood, the individual perception of physical and social incivilities was also negatively associated with the levels of neighbourhood cohesion: adolescents reporting high levels of neighbourhood disorder also reported lower levels of intergenerational closure and trust and reciprocity. It is plausible that individuals perceiving themselves to live in a neighbourhood characterized by high levels of disorder will also be less involved in the life of the local community; as a consequence, they may perceive social relationships among residents as less cohesive.

A result that deserves particular attention, which is in contrast to that which we hypothesized and with the literature (e.g., Quane & Rankin, 2006), is the positive association between the neighbourhood-level disorder and adolescents' tendency to have friends within the local community. According to our findings, in areas characterized by high levels of disorder, young people tend to establish stronger ties with peers within the neighbourhood. The positive association between physical and social disorder and neighbourhood-based friendship may be explained by a protective strategy put in action to cope with the high levels of disorder: adolescents, when living in a local community where signs of disorder such as vandalism, drug dealing or prostitution are frequent, may be encouraged to create strong ties with peers in the neighbourhood in order to feel safer in their own neighbourhood. This explanation is in line with the work of Taylor (1996), who found that people living in neighbourhoods with higher rates of crime were more involved in their local communities respect to those living in neighbourhoods characterized by lower levels of crime. He explained this finding concluding that in some neighbourhoods, signs of disorder such as crime may draw residents together, providing a common problem to deal with, and giving them a sense of confidence, that cohesive ties can reduce their vulnerability in the face of neighbourhood disorder. However, this finding has to be interpreted with caution, considering that it is in contrast with most of the literature on neighbourhood effects.

Overall, the results of the present study are in line with previous findings showing that neighbourhood structural features influence the social processes within the local community. Indeed, the high ethnic diversity, as well as a high population density in the neighbourhood, were associated to less cohesive relationships among residents. Similarly to that found in North-

American studies, neighbourhood structure appears critical in shaping social processes also in the Italian context. In contrast to what generally found on the detrimental effect of socioeconomic disadvantage, we did not find any association between neighbourhood wealth and social connectedness among residents. Although this lack of association may be due to the use of a subjective measure for neighbourhood wealth, it is also possible that the weaker concentration of economic disadvantage characterizing the Italian cities is responsible of this result, suggesting that other features deserve greater attention when planning community actions. For example, according to our results there are other factors that have an impact on the creation of social ties within the neighbourhood. The opportunities for activities and meeting places offered by the local community, in particular, seem to promote both the general level of cohesion among residents and the adolescents' social integration with peers and adults in the neighbourhood. Signs of physical and social disorder, instead, appear as an obstacle to the creation of social relationships characterized by norms of trust and reciprocity, although they were positively associated to adolescents' tendency to have friends in their own neighbourhood.

Although neighbourhood-level variance in social connectedness was modest, ranging from 4.1 to 8.3 %, it was fully explained by the neighbourhood predictors under investigation, showing the importance of considering neighbourhood structure, institutional resources and signs of disorder in order to understand the differences in social connectedness across different neighbourhoods.

### **8.6. Limitations and conclusions**

The study has some limitations to acknowledge. The main limitation is related to the geographical area where the study was conducted: indeed, findings obtained with participants coming from a mid-sized Italian city may not generalize to adolescents in different Italian cities and other parts of the world, where social, cultural, and economic aspects may influence neighbourhood features. However, one of the aims of the current research study was to elucidate potential differences between the Italian context, where there is a paucity of studies which investigated the effects of neighbourhood structure with a multilevel approach, and the North-American cities, where there is strong evidence about the detrimental effects of neighbourhood structural disadvantage.

Moreover, because of the cross-sectional nature of the data, it is not possible to draw conclusions about the direction of the effects. It is plausible that, in neighbourhoods where adolescents report high levels of social connectedness and cohesive ties with other neighbours, individuals have been able to work for their local communities, taking care of public spaces and

promoting activities and social events. The direction of the relationship between these neighbourhood features can only be evaluated using longitudinal studies.

Another limitation lies in the impossibility to obtain an objective measure of neighbourhood socioeconomic status (e.g., income level, % of poverty), which makes it difficult to compare our findings with studies examining the effects of socioeconomic disadvantage on social processes occurring within the local community. However, the employment of administrative data to measure other aspects of neighbourhood structure (ethnic diversity, population density), and the use of aggregate measures to estimate the average perceptions of neighbourhood opportunities and disorder, allowed to obtain diversified and reliable measures of neighbourhood features.

Finally, the exclusion of some neighbourhoods of the city may have influenced the results of the study. Indeed, while in some cases the exclusion was due to the small number of adolescents residing in the neighbourhoods (Isola di Terranegra, Fiera, Stazione Ferroviaria, Zona Industriale, see chapter 7), in other cases, along with a reduced population, there was also a very low response rate (Granze, Montà, San Lazzaro, Stanga). In these excluded neighbourhoods it would have been difficult to use aggregate measures because, with the sampling methodology we adopted, the number of respondents was not sufficient to obtain reliable neighbourhood indicators. However, some of these neighbourhoods represent very disadvantaged areas, with very high percentages of immigrants (reaching, for instance, 26 % in the unit urban Fiera), or with a long story of physical and social disorder (it is the case of the neighbourhood Stanga). For this reason, we have to take into account that the exclusion of these neighbourhoods may have partly influenced the results, and that these particular urban units deserve further attention in future studies.

Despite these limitations, the current study represents the first research conducted in the Italian context examining the association between neighbourhood structural and institutional features, conceptualized and measured at the neighbourhood level, and social connectedness within the local community. By using a methodological approach similar to North-American studies, the current study allows some comparisons between the two different contexts. According to our findings, neighbourhood structural disadvantage can also hinder the establishment of strong social ties within the local community in contexts where socioeconomic disadvantage is not highly pronounced, such as the Italian context. In particular, neighbourhood ethnic composition and population density appears to have an influence on the social connectedness of the community. However, our findings also show the importance of other neighbourhood features, which may represent the basis from which some of the social processes within the neighbourhood are shaped. The opportunities offered by the local community, in terms of meeting places, social events and

activities, seem to have a critical role in promoting the social connectedness among residents, allowing them to get to know each other and developing relationships characterized by trust and reciprocity; the role of these neighbourhood features may be relevant especially in contexts where there are not wide and concentrated socioeconomic disparities (e.g., the Italian context), which may undermine the influence of other neighbourhood characteristics, such as institutional resources. These findings are critical not only for a better understanding of factors influencing social relationships within the neighbourhood, but also for developing community interventions able to promote social connectedness among people living in the same neighbourhood. According to our results, fostering opportunities for activities and meeting places for residents in a community would not only nurture social cohesion within the neighbourhood, but it would also create a setting for young people's positive development. Indeed, as supported by our previous study and the past literature on neighbourhood social processes, in local communities where people are willing to help each other and work for the common good, adolescents have a lower likelihood to be engaged in risky behaviours, while they are encouraged to foster their competencies and skills, thus promoting their positive development.



## CONCLUSIONS

The results of the current work show how the development of civic attitudes, competence and behaviours during adolescence is influenced by the level of social connectedness characterizing the local community where young people reside. The social relationships among people living in a neighbourhood, in turn, are influenced by certain structural and institutional characteristics of the local community.

These findings allow the expansion of the existing literature, both in the field of neighbourhood research and in the study of adolescent civic development.

Regarding the research on neighbourhood effects, our study confirms the importance of the local community as a context that can influence adolescent development. In particular, in line with the positive youth development framework (Benson et al., 2004; Cummings, 2003; Larson, 2006, 2000; Lerner, 2004), and consistently with recent studies showing a positive association between neighbourhood resources and adolescent psychosocial well-being (e.g., Cicognani et al., 2008; Quane & Rankin, 2006), our findings show the critical role of neighbourhood social connectedness in impacting the development of civic attitudes, competence, and behaviours. The neighbourhood of residence does not simply represent a source of risks for being engaged in risky behaviours when characterized by high levels of disadvantage, but it is also a context where adolescents can find several opportunities for positive development, creating networks with people and getting involved in local organizations. Future research should examine in greater depth, along with the detrimental effects of neighbourhood structural disadvantage, the protective and wellness-promotive effects of neighbourhood social resources. In particular, it is critical to understand which neighbourhood features are associated with different outcomes of well-being and social competencies, in order to develop community intervention based on this empirical evidence.

In addition, our findings elucidate some of the processes responsible for the positive association between neighbourhood social connectedness and adolescent civic engagement. The understanding of the mechanisms of influence is a critical issue within neighbourhood research (Leventhal et al., 2009), because a shared theoretical model which is able to explain the association between neighbourhood features and adolescent development is not available yet. However, scholars are moving towards the identification and development of some general theoretical assumptions and models that might facilitate a more complete understanding of neighbourhood

effects. In the current work, a theoretical model linking neighbourhood social connectedness and adolescent civic engagement was evaluated by combining the theoretical models developed in the field of neighbourhood research (Jencks & Mayer, 1990; Leventhal & Brooks-Gunn, 2000; Leventhal et al., 2009) with traditional developmental theories (Bandura, 1986; Erikson, 1968; Selman, 1976; Watts et al., 1999). The proposed model includes some of the processes which, from a developmental and community psychology point of view, explain how informal social ties within the neighbourhood of residence may socialize young people to develop certain civic attitudes, competence and behaviour.

In particular, our findings point out how neighbourhood social connectedness influences adolescents' social networks of peers and adults, making the creation of social ties with civically engaged people easier. Knowing and interacting with people who believe in civic values and work for improving their local community, in turn, is a critical aspect for adolescents' civic development, consistent with what is postulated in the developmental theories on which our model was based (Bandura, 1986; Erikson, 1968; Selman, 1976; Watts et al., 1999).

Moreover, adolescent personal connectedness with people in the neighbourhood also seems to promote adolescent civic development: establishing cohesive ties with neighbours, and having extensive networks with peers in the neighbourhood, appear to be critical factors for the promotion of adolescents' competence for the purposes of civic action, and for the creation of a strong emotional bond to the local community. Adolescents' attachment to their neighbourhood, in turn, can further nurture their sense of civic responsibility towards the local community, which is finally associated with a sense of responsibility towards the society at large, and with higher levels of civic participation.

Future studies are needed in order to collect stronger evidence supporting these processes of influence, and to find additional mechanisms that may be responsible for the association between neighbourhood characteristics and adolescent development. In particular, our study shows the potentiality of linking developmental and community psychology models, in order to identify more specific processes of influence. For this reason, future research should integrate the theoretical models developed in neighbourhood research with developmental theories selected based on the outcome of well-being under investigation, similarly to our study and the work of Ingoldsby and Shaw (2002) on antisocial behaviour.

Considering the novelty of the studies investigating the association between neighbourhood characteristics and adolescent civic engagement, it is also critical to understand how contextual correlates of civic engagement might differ based on adolescents' individual characteristics. Indeed,

recent psychological research shows the role played by demographics in adolescent civic development: being female (Da Silva et al., 2004; Flanagan et al., 1998), native-born (Torney-Purta et al., 2007), and high socio-economic status (Atkins & Hart, 2003), are all associated with higher levels of civic engagement. Contextual correlates of civic engagement, thus, such as neighbourhood social connectedness, may represent critical factors in influencing civic development especially for young people coming from families with a low socioeconomic status and immigrant adolescents; informal ties within the local community may allow young people to partly compensate for the gaps in civic engagement associated with different socioeconomic statuses. For these reasons, the theoretical model we tested in the current work may be different for boys and girls, in different developmental stages and socioeconomic conditions.

Moreover, future research should elucidate the developmental path of civic engagement, by understanding which factors are more efficacious in promoting civic development in different developmental stages. As Obradovic and Masten (2007) pointed out, although Havighurst as far back as 1951 included civic engagement among the main developmental tasks of adolescence, it is still unclear when being civically engaged becomes a relevant developmental task. It is possible that neighbourhood social connectedness is particularly relevant for civic development during early and middle adolescence, when young people's range of action is mainly limited to the local community, and their emotional bond to the neighbourhood is stronger (Chipuer et al., 2003).

Another aspect that deserves further attention in future studies has to do with the interrelation of contextual influences on adolescent civic development. As pointed out by Wilkenfeld (2009), family, peers, school, and neighbourhood contexts interact to produce positive outcomes for young people; in her work, for instance, an interaction between school and neighbourhood contexts was found, indicating that higher levels of civic education in school have a greater positive influence on adolescents living in disadvantaged areas, by improving their civic outcomes.

Important suggestions for future research can also be drawn from the findings of our third study, which show an association between neighbourhood structural and institutional features and the levels of social connectedness among people living in the same neighbourhood. By investigating the association between neighbourhood structural and institutional features, conceptualized and measured at the neighbourhood level, and the social connectedness within the local community in a sample of Italian adolescents, this study allows the exploration of similarities and diversities across national contexts. On one hand, our findings show that neighbourhood structural disadvantage can also hinder the establishment of strong social ties within the local community in the Italian context, where the concentration of socioeconomic disadvantage is not as pronounced as in the U.S. In

particular, high ethnic diversity and population density in the neighbourhood appear to have a detrimental influence on the creation of cohesive ties among residents. On the other hand, our findings also show the importance of other neighbourhood features, which may represent the basis from which some of the social processes within the neighbourhood are shaped: the opportunities offered by the local community, in terms of meeting places, social events and activities, seem to have a critical role in promoting the informal social ties among residents, allowing them to get to know each other and developing relationships characterized by trust and reciprocity. The role of these neighbourhood features may be relevant especially in contexts where there are not wide and concentrated socioeconomic disparities (e.g., the Italian context), which may undermine the influence of other neighbourhood characteristics, such as institutional resources.

These findings underline the need for international studies to investigate the correlates of neighbourhood social connectedness and the role of social relationships within the neighbourhood in influencing civic development. Although cross-national studies in this field are rare (Torney-Purta, Wilkenfeld, & Barber, 2008), there is a need to explore more deeply correlates of civic engagement in a cross-national perspective, in order to identify both universal and country-specific factors related to civic development.

The findings of our studies, finally, might be useful in order to plan community interventions aimed at promoting civic engagement during adolescence.

First of all, our findings show the role of informal social ties in the local community for adolescent civic development. In neighbourhoods with high levels of social cohesion, adolescents tend to have a higher sense of civic responsibility, that is, a system of beliefs underlining the importance of contributing to the well-being of their local community. Moreover, extensive personal networks with people in the neighbourhood and adolescents' attachment to their local community also contributes to the development of civic attitudes and competencies. In line with Flanagan et al. (2007), the social processes occurring within the neighbourhood can be defined as a microcosm of public life, in which adolescents have opportunities to exercise rights and assume responsibilities as members of the local community, thus learning how to contribute to the common good. In this "natural" microcosm of civic life, approachable and easy to understand for young people, they may learn how their daily actions can impact the well-being of the whole community, and develop confidence about their civic competencies. From these results we can derive critical suggestions for developing programs to promote positive citizenship among young people.

In general, researchers and practitioners support the idea that interventions for promoting civic engagement should begin by creating opportunities for adolescents to participate (Youniss &

Yates, 1999), or teaching them the functioning of society including a civic curriculum during school classes (Avery, Freeman, & Greenwalt, 2005; Feldman, Pasek, Romer, & Jamieson, 2007). Although a basic knowledge of societal issues and an active experience of participation are critical to developing civic attitudes and competencies, our results suggest that, in order to promote civic engagement, programs need to focus on the main social settings of adolescents' lives. Similarly to that postulated by Zaff et al., (2008), our results indicate that a broad "civic context" should be in place throughout adolescence in order to maximize the development of civic engagement. Thus, civic engagement initiatives should take a broader approach than only implementing civic activities for young people, by focusing on multiple social systems in which adolescents are embedded: promoting cohesive ties within the neighbourhood, in schools, with adults and peers. When adolescents' social relationships in multiple settings are characterized by trust and reciprocity, civic values can be transmitted to them, thus maximizing the role of "explicit" civic education in school or within the family.

Social scientists and professionals should concentrate their future efforts on developing specific strategies to improve neighbourhood social connectedness, in order to promote adolescents' civic engagement. Although these strategies depend, in part, on the specific characteristics of the community in which the program is carried out, according to our results a promising approach consists in fostering the opportunities for activities and meeting places for residents in a community; improving neighbourhood opportunities would not only nurture social cohesion within the neighbourhood, but also create a setting for young people's positive development. Indeed, as supported by our previous study and the past literature on neighbourhood social processes, in local communities where people are willing to help each other and work for the common good, adolescents have a lower likelihood of being engaged in risky behaviours, while they are encouraged to foster their competencies and skills, thus promoting their positive development.

Moreover, although impacting neighbourhood structural disadvantage (which represents an obstacle for the creation of cohesive ties within the neighbourhood) is not easy as a focus of intervention, knowing its detrimental effects on neighbourhood social connectedness is also fundamental for the purposes of practice. In particular, it allows the identification of the areas where adolescents are at highest risk of lagging behind their peers in terms of civic development, and programs for the promotion of civic engagement are more urgent.

In conclusion, it is worth noting that our study examined different components of civic engagement, representing the "traditional" forms of civic involvement investigated in the literature. However, as Wilkenfeld (2009) pointed out, technological advances and emergent societal and

environmental issues (e.g., pollution, green energies) occurring in recent years may have an impact on the range of civic activities in which adolescents (and adults) may be involved. For instance, adolescents interact and exchange opinions on social and political issues in blogs and online forums and sign online protests; the field of study on civic engagement is just beginning to explore these new forms of civic involvement, and their effects on young people's civic development (Harell et al., 2008). The employment of new technologies represents a promising strategy for interventions to promote adolescents' civic engagement, allowing them to stay informed about local and global issues, to rapidly communicate and to easily organize demonstrations and events.

Civic engagement has historical, economical, cultural and social roots, so that efforts to promote it cannot be really efficacious if they don't take into account the influence of historical changes on the social settings in which the individual is embedded.

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