The impact of spatial mobilities and physical distance on interpersonal relationships: do spatially mobile people have weakened intimate and family ties?

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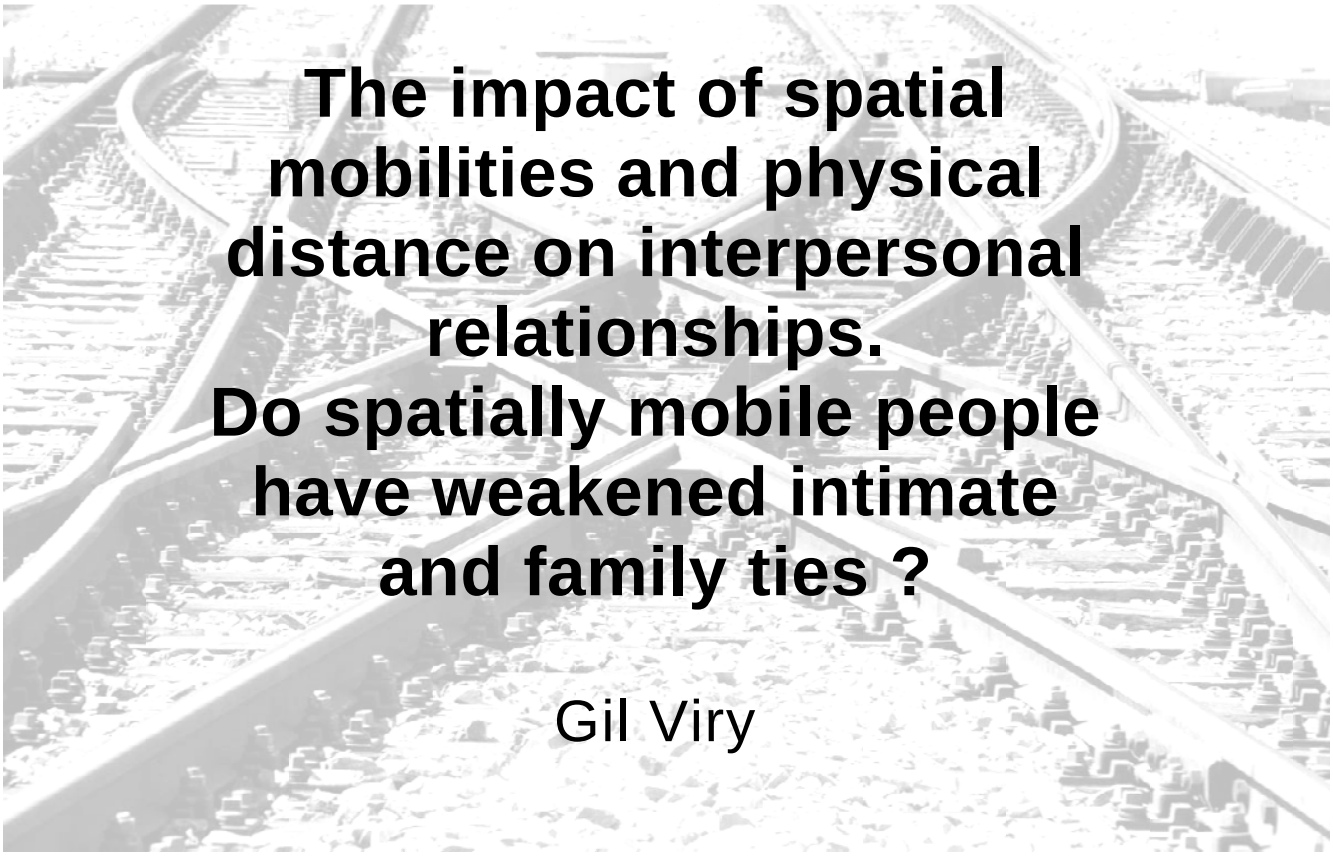

The impact of spatial mobilities and physical distance on interpersonal relationships. Do spatially mobile people have weakened intimate and family ties ?

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UNIVERSITÉ DE GENÈVE
FACULTÉ DES SCIENCES ÉCONOMIQUES ET SOCIALES

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Au cours de ces dernières décennies, nos sociétés industrielles modernes ont été caractérisées par un remarquable essor des systèmes de transport rapide et de télécommunication instantanée. Cette évolution n'a pas conduit à l'affranchissement des distances dans les relations interpersonnelles, mais au fait que les liens sociaux sont davantage construits et maintenus à travers la mobilité spatiale individuelle. Le désir et parfois l'obligation de combiner des activités encore inconciliables socialement et spatialement avant l'ère de la grande vitesse amènent ainsi les individus à devoir être toujours plus mobiles pour rester insérés socialement et professionnellement dans un espace géographique plus vaste. La pratique de mobilité et l'éloignement géographique entre autruis conduisent les individus à s'adapter dans leurs manières de construire et maintenir leurs liens intimes et familiaux. Ces adaptations ont pour effet de transformer ces liens, à la fois dans leur structure, dans leur composition et dans leur force. S'appuyant sur trois bases de données quantitatives suisses et européennes, ce travail de doctorat regroupe cinq publications qui explorent un certain nombre de changements majeurs du lien social dans un monde mobile.

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The impact of spatial mobilities and physical distance on interpersonal relationships

Do spatially mobile people have weakened intimate and family ties?

THÈSE

présentée à la Faculté des sciences économiques et sociales
de l'Université de Genève

par

Gil Viry

sous la direction de

Prof. Vincent Kaufmann et
Prof. Eric D. Widmer

pour l'obtention du grade de

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La Faculté des sciences économiques et sociales, sur préavis du jury, a autorisé l'impression de la présente thèse, sans entendre, par là, émettre aucune opinion sur les propositions qui s'y trouvent énoncées et qui n'engagent que la responsabilité de leur auteur.

Genève, le 31 octobre 2011

Le doyen
Bernard MORARD

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Introduction

Mobilités spatiales et éloignement géographique : quels effets sur les liens intimes et familiaux ?

Essor des pratiques de mobilités spatiales individuelles

Dans nos sociétés contemporaines, un certain nombre de changements structurels tels que la bi-activité des ménages, la précarisation et la flexibilisation de l'emploi, la mondialisation économique ou encore la concentration des emplois dans les agglomérations urbaines, a favorisé un remarquable essor des pratiques de mobilité spatiale. Ce phénomène s'est accéléré au cours de ces dernières décennies. Ce qui a fondamentalement changé n'est pas le nombre de déplacements quotidiens, resté stable depuis un siècle (entre 3 et 4), mais la portée spatiale et le temps de déplacement qui se sont fortement accrus (Crozet, 2011). Cet essor de la mobilité n'est pas seulement spatial, mais également social. Si la grande mobilité spatiale concernait avant tout les extrêmes de l'échelle sociale il y a encore un demi-siècle (élites professionnelles d'un côté, vagabonds ou migrants de pays pauvres de l'autre), elle se rapporte aujourd'hui à des catégories sociales bien plus larges (Levy et al., 1997 ; Schneider et Meil, 2008). La quantification des pratiques de mobilité spatiale est toutefois rendue difficile par la diversification de ses formes. Sous l'impulsion notamment des potentiels de vitesse offerts par les systèmes de transport et de télécommunication, les arrangements de vie mobile se complexifient et s'individualisent. Les pluri-localités, à la fois dans les lieux de travail et de domicile (Duchêne-Lacroix, 2007), ainsi que l'usage multi-modaux des moyens de transport n'est plus rare. Dans une perspective du temps long, les parcours de mobilité professionnelle deviennent également plus complexes, avec la multiplication des contrats à durée déterminée et des projets à court terme qui sont chacun susceptibles d'être associés à des déplacements dans l'espace (Callaghan, 1997).

Plus fondamentalement, la pratique de mobilité spatiale est un phénomène social ambivalent. D'une part, elle correspond au nouveau modèle de réussite sociale, qui s'exprime dorénavant au travers de projets toujours renouvelés (Boltanski et Chiapello, 1999). L'enjeu d'une carrière professionnelle n'est plus de conquérir un statut dans une structure hiérarchique, mais bien d'être apte à « rebondir » d'un projet à l'autre pour « surfer » d'une position enviable à une autre dans un environnement changeant. La mobilité spatiale y joue alors un rôle nouveau. La mobilité spatiale fait ici également écho à l'exacerbation de la liberté et de l'autonomie individuelle de nos sociétés modernes. La mobilité spatiale et la conquête de la mobilité, c'est alors se libérer des contraintes spatio-temporelles associées à un territoire et accéder à la multiplicité des choix

qu'offrent les sociétés post-modernes (Canzler et al., 2008). Traditionnellement moyen d'assurer la cohésion nationale et la continuité territoriale (Boudreau, 2011), la mobilité spatiale est aujourd'hui prônée par les Etats pour augmenter l'employabilité des individus, en particulier celle des plus fragiles qui vivent de l'assistance (Orfeuil, 2010). Pour Harvey (1989, 2001), la mobilité spatiale des travailleurs est inhérente au capitalisme, ce dernier conduisant au développement économique de certains espaces et à la disparition d'autres. Les travailleurs sont dès lors contraints d'être mobiles pour aller travailler là où les capitaux vont. Alors que ces mouvements de capitaux et de personnes se produisaient par le passé à l'échelle d'une ou de plusieurs générations, l'accélération récente de ce phénomène rend désormais nécessaire la mobilité spatiale au fil des carrières individuelles. Pourtant, parallèlement à cette incitation à se déplacer davantage, force est de constater que les pratiques de grande mobilité spatiale, sous quelque forme que ce soit, sont non désirées par la plupart des individus. Seule une petite minorité de la population active (bien que différente en proportion selon le contexte national), souvent des jeunes hautement qualifiés et sans enfants ou alors des hommes mobiles depuis un certain nombre d'années, se déclarent disposés à se déplacer régulièrement pour un (meilleur) emploi (Schneider et Meil, 2008 ; Viry et Vincent-Geslin, à paraître). La volonté de changer de région, voire de pays, est encore plus réduite. Les citoyens des 25 pays de l'union européenne sont ainsi respectivement 80% et 98% à vivre dans la région ou le pays où ils sont nés (Eurostat, 2006). Cette faible propension à se déplacer s'explique principalement par les contraintes de la mobilité spatiale sur les relations sociales et familiales qui sont souvent ancrées dans un espace donné. Cette ambivalence de la mobilité spatiale peut être renvoyée à l'universel contradictoire entre la réussite individuelle (souvent prônée socialement) et la réussite familiale ou relationnelle (souvent déclarée par les individus).

Une conséquence importante de cette ambivalence est la réversibilisation des formes de mobilité spatiale. Afin de concilier un fort ancrage relationnel localisé avec un lieu de travail éloigné, les individus utilisent les potentiels de vitesse offerts par les systèmes de transport et de télécommunication pour substituer aux formes les plus définitives de mobilité, comme le déménagement ou la migration, des formes plus réversibles comme la pendularité et les voyages professionnels (Kaufmann et al., 2006 ; Montulet and Kaufmann 2004 ; Kaufmann and Montulet 2008). Se déplacer en train à grande vitesse, sur l'autoroute ou en avion tend alors à rendre les espaces réversibles, dans le sens où des liens sociaux réguliers peuvent y être maintenus à travers la co-présence. On va ainsi décider de penduler plutôt que de déménager pour conserver ses liens d'amitié ou de voisinage, pour s'occuper d'un parent âgé, pour permettre à ses enfants de rester scolarisés dans l'école de quartier ou encore pour concilier deux emplois au sein du ménage. Les formes réversibles de grande mobilité spatiale sont ainsi paradoxalement associées à une forte sédentarité résidentielle (Kaufmann, 2008). Ces stratégies de conciliation occasionnent toutefois de nouvelles contraintes sur les individus mobiles et leurs réseaux sociaux. Les longs déplacements d'un individu et son absence régulière du foyer modifient en effet en profondeur l'investissement de l'individu mobile dans ses relations sociales et sa participation à la vie familiale et

communautaire. Une mobilité spatiale accrue, qu'elle soit sous une forme réversible ou qu'elle soit résidentielle n'est ainsi pas sans poser des défis majeurs au développement et à l'organisation familiale d'une part et à l'intégration sociale d'autre part.

Le lien social dans un monde mobile

S'interroger sur la question du lien social dans un monde mobile amène tout d'abord un constat : l'accélération des vitesses de déplacement et de communications n'a pas annulé l'effet de la distance sur les relations interpersonnelles. Deux raisons peuvent être ici brièvement évoquées pour expliquer ce phénomène. Premièrement, le lien social, et à plus forte raison le lien intime, ne peut se faire uniquement à travers l'utilisation des technologies d'information et de communication (TIC). En effet, tisser et maintenir des relations à distance nécessite également des moments (occasionnels) de co-présence physique (Cass et al., 2005 ; Larsen et al., 2006 ; Urry, 2003). Ces moments interviennent souvent lors d'évènements particuliers comportant une importante charge symbolique (mariage, anniversaire, fête). La confiance interpersonnelle, la nécessité de montrer à autrui son intérêt à le rencontrer, les obligations professionnelles et familiales ou encore l'échange d'émotions à travers le toucher et le langage corporel rendent essentielles les conversations en face-à-face pour la construction et le maintien du lien social et de l'intimité (Urry, 2003). La diminution importante de la fréquence des contacts (en face-à-face et à distance) à partir d'une distance interpersonnelle de quelques kilomètres déjà démontre que les systèmes de transport et de communication à haute vitesse ne permettent pas de transcender radicalement les distances physiques interpersonnelles (Hampton et Wellman, 2002 ; Mok et al., 2010 ; Wellman, 1996).

Une deuxième raison tient au phénomène présenté ci-avant selon lequel l'expansion des vitesses de transport s'est accompagnée d'une exigence croissante à être mobile. Les gains de vitesse de déplacement sont donc en grande partie absorbés par les plus grandes distances à parcourir pour être en lien avec autrui. L'étalement urbain, induit à la fois par le désir d'habitat individuel et l'explosion du coût des logements dans les villes centres, illustre ce fait. Ce qui a changé, ce n'est pas l'affranchissement des distances dans les relations interpersonnelles, mais le fait que les liens sociaux sont davantage construits et maintenus à travers la mobilité spatiale individuelle (Larsen et al., 2006 ; Kaufmann et al., 2006). Le désir et parfois l'obligation de combiner des activités encore inconciliables socialement et spatialement avant l'ère de la grande vitesse (Urry, 2007a) amènent ainsi les individus à devoir être toujours plus mobiles pour rester insérés socialement et professionnellement. Les liens sociaux sont dès lors de moins en moins construits dans la proximité et dans des espaces délimités (territoires), mais davantage dans les relations à distance et les espaces réticulaires (réseaux ou flux) (Kaufmann et al., 2006 ; Larsen et al. 2006 ; Lévy, 1999 ; Montulet, 1998 ; Wellman, 2001). Ce qui compte n'est pas uniquement la distance géographique séparant les individus, mais aussi la connectivité de ces individus aux réseaux de transport et de télécommunications et leur propension à les utiliser pour franchir cette distance. Dans l'exemple d'un

enfant adulte se retrouvant éloigné de ses parents, la capacité des acteurs à faire usage des potentiels de mobilité spatiale devient cruciale pour maintenir le lien parental.

Dans ce contexte, la capacité (inégalement distribuée) à être mobile ou *motilité* (Kaufmann, 2002) devient un enjeu de justice sociale. La motilité se compose de l'ensemble des facteurs définissant la potentialité à être mobile dans l'espace, soit par exemple les capacités physiques, les aspirations à se déplacer, les infrastructures de transport et de télécommunication et leur accessibilité, les connaissances acquises, comme le permis de conduire ou les langues, etc. Cette motilité reste souvent à l'état de potentiel et ne se transforme en déplacements qu'en situation d'opportunités. Le *capital en réseau* est un concept connexe à la motilité (Larsen et al. 2006 ; Urry, 2007b). Il définit l'ensemble des dispositions des individus à utiliser les moyens de télécommunication et de déplacement dans l'espace pour développer et maintenir des relations à distance. Lorsque ces dispositions font défaut, le risque d'isolement social est important (Cass et al., 2005 ; Kenyon, 2006 ; Le Breton, 2005). A l'inverse, différentes études sur des journalistes indépendants (Kesselring, 2005, 2006), des professionnels des médias (Wittel, 2001), des architectes et des ingénieurs (Kennedy, 2004, 2005) ont montré que ces personnes, bien que mobiles sous diverses formes, pouvaient maintenir et développer un vaste réseau social. Leurs hautes compétences de mobilité spatiale, nécessaires à l'exercice de leur profession, leur permettaient à la fois de maintenir des liens avec leur communauté d'origine et d'enrichir leur réseau par de nouveaux contacts, souvent issus de la sphère professionnelle. Dans cette *socialité en réseau*, les liens sont particulièrement individualisés, fluctuants, moins basés sur une histoire commune (et plus sur des projets) et indissociables des technologies mobiles (Elliott and Urry, 2010 ; Urry, 2003 ; Wittel, 2001).

Les dynamiques relationnelles observées dans le cas de ces travailleurs indépendants et hautement qualifiés sont-elles généralisables à l'ensemble des familles confrontées à la mobilité spatiale d'un ou plusieurs de ces membres ? Est-ce que ces pionniers de la mobilité spatiale laissent augurer des relations familiales de demain où la frontière entre liens professionnels et liens intimes se fera de plus en plus floue et où triompheront les liens individualisés et le contrat court sur les liens collectifs et durables ? Rien n'est moins sûr. Ce mode d'intégration sociale implique une forte motilité, mais également une forte autonomie des individus. Celle-ci entre en tension avec l'importante interdépendance des relations familiales et plus généralement des relations intimes, caractérisées par de fortes attentes normatives et obligations. L'utilisation des potentiels de mobilité spatiale a beau être maximale, il reste difficile de compter sur quelqu'un qui est éloigné pour s'impliquer dans son couple, dans l'éducation de ses enfants, dans ses liens d'amitiés ou de voisinage.

Concilier mobilité spatiale et famille

La recherche, bien qu'encore relativement nouvelle dans ce domaine, révèle différentes stratégies déployées par les personnes mobiles et leur famille pour concilier et combiner vie mobile et vie familiale. Ces stratégies de conciliation sont consécutives des tensions entre autonomie individuelle et interdépendance familiale. L'emploi de l'une ou de l'autre de ces stratégies résultent de mécanismes complexes d'arbitrage entre les contraintes spatio-temporelles associées aux différentes activités professionnelles et familiales, les attachements aux lieux, les ressources individuelles et collectives à disposition des acteurs (financière, relationnelle et de motilité), le fonctionnement familial ou encore les relations de pouvoir entre partenaires. La personne mobile (et sa famille) s'inscrivent dès lors dans un système de contraintes qui orientent leurs choix et qui sont plus ou moins perçues (la plupart restent à l'état inconscient) et acceptées par les acteurs comme quelque chose de « contraignant », « naturel », « supportable » ou « avantageux ». Le fait de passer deux heures par jour pour se rendre à son travail par exemple ne saurait avoir été adopté sur un mode purement électif, ce qui n'empêche pas les pendulaires de s'en représenter les avantages (meilleur emploi, échapper à son milieu familial pour dégager du temps pour soi, etc.). Ces stratégies de conciliation sont ainsi des stratégies d'adaptation à un système de contraintes.

Sept stratégies peuvent être observées.

1) *Choisir de pratiquer une forme spécifique de mobilité spatiale*. Dans certaines situations, les individus peuvent opter pour la pendularité plutôt que le déménagement, afin de préserver l'intégration du groupe familial au sein de son environnement social (logement, école, voisinage, réseau d'amis et de parents) (voir ci-avant).
2) *Interrompre (ou diminuer) la mobilité spatiale à l'arrivée de l'enfant*. Moins ancrés dans la fabrique sociale de leur lieu de domicile que des parents, les couples sans enfant sont en effet davantage en mesure de se déplacer sur de grandes distances (Courgeau, 1989 ; Kulu, 2005 ; Schneider et al., 2002 ; Schneider et Meil, 2008). Lors de la transition à la parentalité, les exigences élevées en ce qui concerne les besoins des jeunes enfants (à la fois matériels et relationnels) conduisent un certain nombre de parents, en particulier les mères, à interrompre leur grande mobilité spatiale.
3) *Repousser voire renoncer à l'enfant*. Afin de poursuivre leur carrière nécessitant flexibilité spatiale et temporelle, certains couples tendent à retarder l'arrivée du premier enfant (Schneider et al., 2002). Cette stratégie comporte alors le risque, en particulier pour les femmes qui sont face à l'horloge biologique, de rester sans enfant ou d'avoir moins d'enfants que désiré (Quesnel-Vallée et Morgan, 2003).
4) *Reporter les tâches domestiques et éducatives sur le conjoint non-mobile, en général la femme*. L'absence répétée de l'homme mobile pour cause de déplacements réguliers et la priorité mise sur sa carrière tendent à une division plus genrée des rôles professionnel et familial entre les deux conjoints (Schneider et al., 2002 ; Schneider et Meil, 2008).

5) *Diminuer l'investissement dans les liens amicaux et dans l'engagement communautaire*. Cette stratégie a alors pour conséquence une centration sur la famille. A l'exception des relations de couple à distance (souvent sans enfant) qui maintiennent un réseau d'amis relativement important, les personnes se déplaçant régulièrement et longtemps pour leur travail tendent à réduire les contacts en dehors de la sphère professionnelle et du cercle familial (Schneider et al., 2002). Le rôle de sociabilité au sein d'un réseau élargi (amis, associations, voisinage, famille éloignée) est alors souvent endossé par la personne non-mobile, généralement la femme (Becerril, 2003 ; Collmer, 2005 ; Schneider et al., 2002 ; Soriano, 2005).
6) *Compenser l'absence de la personne mobile par une forte mobilisation du réseau social, en particulier le réseau de parenté*. Cette stratégie semble particulièrement employée dans le cas de femmes se déplaçant régulièrement pour le travail et sollicitant leur réseau de proximité dans la réalisation de diverses tâches familiales (hébergement, garde d'enfant) (Vincent et al., 2010). Dans ce cas de figure, la mobilité spatiale féminine résulte souvent d'un compromis entre la réalisation d'une carrière par la femme et le maintien de l'activité professionnelle de l'homme, conduisant le couple à devoir trouver du soutien hors du foyer familial (Vincent et al., 2010). De nombreuses études sur la migration ont également souligné le rôle considérable joué par les réseaux de proximité dans la société d'accueil et par les réseaux familiaux dans le pays d'origine (en particulier : Bonvalet et Maison, 1999 ; Chamberlain, 1995 ; Litwak, 1960; Mason, 1999, 2004). Ces réseaux sont alors d'importantes sources de soutien financier, pratique et émotionnel pour les migrants.
7) *Développer un style d'interaction conjugal basé sur l'autonomie des partenaires*. Au fil de leurs expériences de mobilité spatiale les amenant à être géographiquement éloignés, les deux partenaires vont développer un fonctionnement conjugal mettant l'accent sur l'autonomie individuelle et le temps investit en dehors du couple, plutôt que sur la similitude des orientations et le temps passé ensemble (Kaufmann et Widmer, 2006). Une validation empirique de cette stratégie d'adaptation est toutefois encore manquante. Une hypothèse alternative est qu'il s'agit davantage d'un effet de sélection : les partenaires mettant l'accent sur leur autonomie propre – caractéristique essentiellement acquise avant leurs expériences de mobilité spatiale – tendent à se déplacer régulièrement davantage que les couples fusionnels (qui pourrait eux privilégier le déménagement ou l'immobilité).

Il est toutefois important de souligner que ces résultats sont essentiellement basés sur des études transversales (voire rétrospectives) qui ne permettent pas d'analyser l'évolution des familles dans le temps et dans leur manière de s'adapter aux expériences de mobilité spatiale. Ces lacunes sont d'autant plus prégnantes que les pratiques de mobilité spatiale ont très rapidement évoluées au cours de ces dernières décennies. Ces enquêtes ont pu alors confondre des effets imputés à la position dans le parcours de vie des personnes mobiles avec des effets de cohorte ou encore des effets de sélection avec des effets d'adaptation.

Données

Trois bases de données quantitatives ont été utilisées dans le cadre de cette thèse de doctorat. La première est issue de l'enquête MOSAiCH 2005 comprenant un échantillon représentatif de la population résidant en Suisse âgée de 18 ans et plus. 1078 personnes ont été interrogées en face-à-face sur la base d'un questionnaire standardisé. Chaque répondant devait notamment mentionner les personnes (au maximum quatre) avec qui il avait « discuté de choses qui lui paraissaient importantes (travail, famille, politique, etc.) au cours des 6 derniers mois » ainsi que le soutien émotionnel échangé entre les membres de son réseau (répondant y compris). Diverses informations sur les personnes citées étaient également collectées (sexe, âge, type de relation avec le répondant, nombre d'années de connaissance, etc.). Sur le plan spatial, il était demandé aux répondants de mentionner, pour chaque personne citée ainsi que pour eux-mêmes, la commune de domicile actuelle, la commune de travail actuelle, ainsi que la commune de domicile à l'âge de 14 ans. A partir de ces informations et à l'aide d'un logiciel de routing modélisant l'ensemble du réseau routier suisse, des distances par la route ont été calculées, en prenant pour coordonnées les centres géographiques des communes. La distance de pendularité du répondant, la distance entre sa résidence actuelle et sa résidence à 14 ans (mobilité résidentielle), ainsi que la distance moyenne séparant les résidences des différents membres du réseau ont alors pu être calculées. C'est donc sur la base de très petits réseaux personnels constitués avant tout de liens intimes que la spatialité du réseau, sa structure relationnelle (densité, etc.), sa composition, sa taille (nombre de liens de soutien) et enfin la qualité des liens (mesurée par la probabilité qu'un lien de discussion soit soutenant) ont ainsi pu être mesurés.

La deuxième base de données est issue du programme européen de recherche « Job Mobilities and Family Lives in Europe » (JobMob), qui constitue la première enquête quantitative à l'échelle de six pays européens portant sur les interactions entre grande mobilité spatiale et vie familiale. Chaque base de données nationale est constituée de deux échantillons : un premier échantillon représentatif de la population résidante du pays âgée entre 25 et 54 ans, ainsi qu'un second échantillon, où seules les personnes âgées entre 25 et 54 ans pratiquant une forme de grande mobilité spatiale pour raisons professionnelles ont été interrogées. Les personnes mobiles suréchantillonnées furent par la suite sous-pondérées, afin d'obtenir des échantillons nationaux représentatifs, mais comprenant néanmoins un nombre suffisant de personnes mobiles pour obtenir une puissance statistique satisfaisante. Pour ce travail de doctorat, les données allemandes (n=1663), françaises (n=1223) et suisses (n=1007) ont été utilisées. Ces personnes, toutes sélectionnées par méthode aléatoire, ont été interrogées par téléphone en 2007 sur la base d'un questionnaire standardisé. La grande mobilité spatiale pour raisons professionnelles a été définie dans cette enquête en fonction de l'intensité des déplacements, mesurée soit en terme de durée et de distance parcourue, soit en terme d'absences longues ou répétées du domicile principale. Il pouvait s'agir de formes de mobilité irréversibles comme réversibles. Précisément, quatre formes de grande mobilité spatiale pour raisons professionnelles ont été considérées : les personnes ayant

déménagé récemment (au cours des trois dernières années précédant l'entretien) pour des raisons professionnelles, soit à l'intérieur du pays sur une distance géographique d'au moins 50 kilomètres, soit au-delà de frontières nationales, les pendulaires quotidiens de longue distance (trajet domicile-travail d'au minimum deux heures aller-retour), les relations de couple à distance où les personnes vivent séparées de leur partenaire pour des raisons professionnelles (trajet entre les deux résidences d'au moins une heure), et enfin toutes les formes de déplacement professionnel impliquant de passer au minimum 60 nuits par année hors du domicile principal (bi-résidentialité, voyages d'affaires, travail saisonnier, etc.). Cette dernière catégorie a été dénommée les « absents du domicile ».

La troisième base de données est issue de l'enquête « Social capital and family processes as predictors of stepfamily outcomes » (StepOut) (Widmer et Favez, 2011). Cette recherche interdisciplinaire entre la sociologie et la psychologie clinique constitue la première grande enquête quantitative suisse comparant les familles recomposées et les familles de première union. Elle se centre sur les interactions existant entre les configurations familiales, le capital social, le co-parentage et le développement de l'enfant. Pour ce travail de doctorat, seul l'échantillon concernant les familles recomposées a été utilisé. 150 femmes ayant un partenaire régulier et vivant avec au moins un enfant biologique âgé entre cinq et quatorze ans et issu d'une précédente union ont été interrogées en face à face entre 2009 et 2010. La répondante ou le partenaire co-résident pouvaient avoir d'autres enfants, soit avec le partenaire actuel, soit avec un précédent partenaire, vivant avec eux ou ailleurs. L'ensemble de ces femmes vivaient dans le canton de Genève au moment de l'entretien et furent sélectionnées par méthode aléatoire. Les pères n'ont pas été interrogés dans cette étude. A partir de l'information sur les communes de résidence actuelles du père et de la mère, la distance par la route entre les deux ex-conjoints a été calculée à l'aide d'un logiciel de routing, en prenant pour coordonnées les centres géographiques des communes. Les mères ont également dû estimer dans quelle mesure elles favorisaient une image positive du père auprès de l'enfant et des interactions positives au sein de la triade parents-enfant. A partir de cette information, une échelle de co-parentage a été construite.

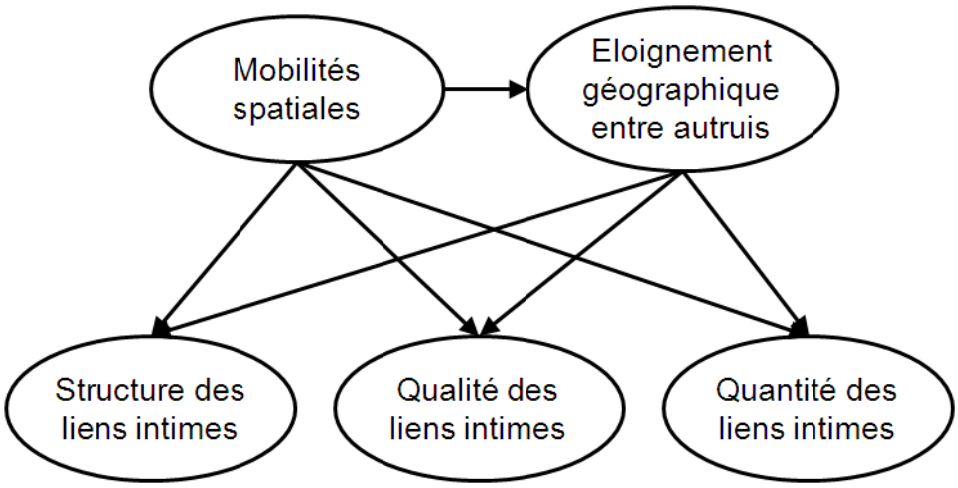
Questions de recherche

Cette thèse de doctorat adresse deux questions générales de recherche.

1) Quel est l'impact des pratiques de mobilité spatiale sur l'éloignement géographique entre autruis, sur la structure, la quantité et la qualité des liens intimes ?
2) Quel est l'impact de l'éloignement géographique entre autruis sur la structure, la quantité et la qualité des liens intimes ?

Les cinq articles constituant les cinq chapitres de cette thèse de doctorat déclinent de diverses manières ces deux questions générales. Certains articles se centrent sur une forme particulière de mobilité spatiale (mobilité résidentielle, pendularité) ou sur un lien familial particulier (relation conjugale, relation père-

enfant), tandis que d'autres se centrent sur une pluralité de formes de mobilité spatiale et sur les liens intimes du répondant en général.

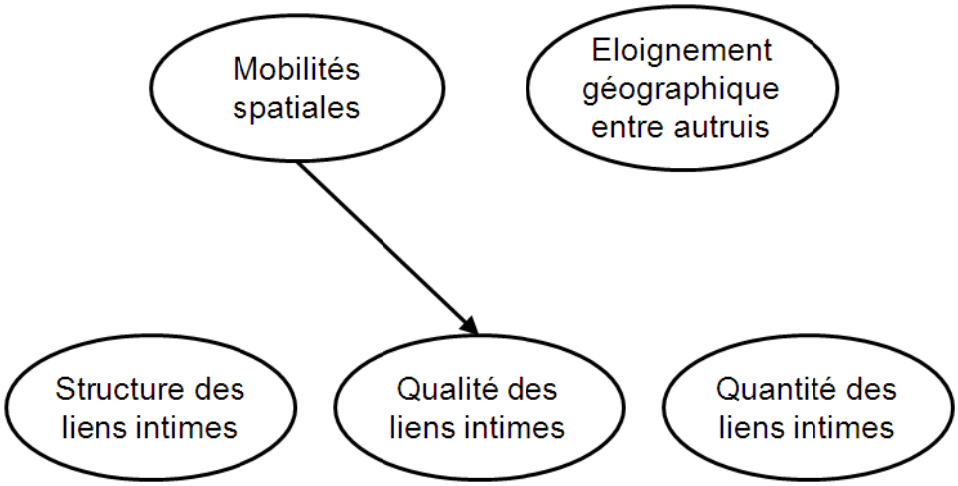


Les deux premiers chapitres **« Residential mobility and the spatial dispersion of personal networks: effects on social support »** (Viry, 2011) et **« Social integration faced with commuting: more widespread and less dense support networks »** (Viry et al., 2009a) traitent respectivement de l'effet de vivre loin de son lieu d'origine et loin de son lieu de travail sur la spatialité du réseau social et sur la structure, la quantité et la qualité[1] des liens de soutien émotionnel entre membres du réseau. Les données utilisées dans ces deux études proviennent de l'enquête MOSAiCH 2005. L'hypothèse centrale avance que ces deux formes de mobilité spatiale – la mobilité résidentielle et la pendularité quotidienne – conduisent à une recomposition à une échelle spatiale plus large de l'insertion relationnelle, qui, à son tour, favorise une structure relationnelle où les membres cités se soutiennent moins les uns les autres qu'en situation de sédentarité/contiguïté. Sans conduire nécessairement à un déficit de soutien (quantité et qualité des liens inchangées), ces formes de mobilité spatiale favoriseraient alors des liens sociaux plus individualisés (Urry, 2003 ; Wittel, 2001) et un *capital social de type pont* (*bridging social capital*), où l'individu mobile deviendrait l'intermédiaire obligé entre ses autruis (Burt, 1992 ; Putnam, 2000 ; Widmer, 2006 ; Woolcock and Narayan, 2000).

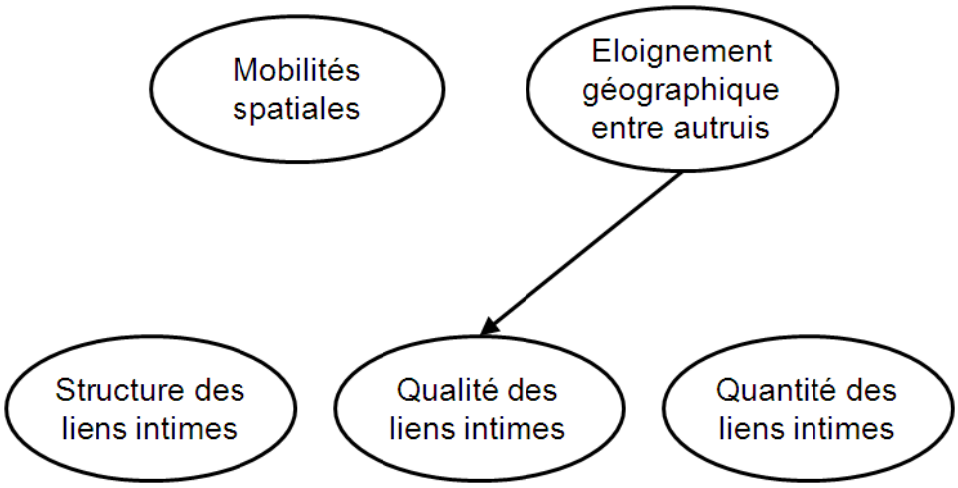
Le troisième chapitre **« La grande mobilité géographique pour des raisons professionnelles en Suisse : une étape de vie pré-parentale ? »** (Viry et al., 2009b) et le quatrième chapitre **« Does it matter for us that my partner or I**

[1] La qualité des liens a été mesurée dans ces deux études par la probabilité qu'un lien entre le répondant et une personne qu'il a cité dans son réseau soit soutenant.

commute? Spatial mobility for job reasons and the quality of conjugal relationships in France, Germany, and Switzerland » (Viry et al., 2010) portent plus spécifiquement sur l'impact des pratiques de mobilité spatiale sur la qualité du lien conjugal. Les pratiques de mobilité sont définies ici par toute forme de déplacement réalisé sur une grande distance pour le travail. Les données sont issues de l'enquête européenne « Job Mobilities and Family Lives in Europe » (JobMob). Le 3e article traite plus particulièrement de l'articulation entre vie familiale et vie mobile en Suisse. Dans cette étude, il s'agit principalement de tester deux hypothèses concurrentes, ou pour reprendre la terminologie utilisée plus haut, deux stratégies de conciliation concurrentes. La première avance que les déplacements réguliers des individus interviennent principalement en situation parentale, afin de maintenir les réseaux et environnements sociaux. Par le fort ancrage résidentiel dû à la présence d'enfants, ces individus font alors le choix d'une grande mobilité quotidienne ou hebdomadaire pour répondre aux exigences de mobilité spatiale du marché du travail. La seconde hypothèse avance au contraire que les déplacements réguliers pour raisons professionnelles interviennent principalement avant l'arrivée du premier enfant, lorsque la flexibilité spatiale et temporelle des individus et des couples est plus importante qu'en situation de parentalité. Cette étude explore en outre dans quelle mesure ces pratiques de mobilité spatiale favorisent une division inégale du travail entre sphère professionnelle et domestique entre les deux conjoints lorsque l'un deux est mobile (troisième stratégie de conciliation mobilité-famille). Les caractéristiques de la Suisse en terme de politiques familiales, de marché de l'emploi et de territoire et leurs influences possibles sur les stratégies de conciliation des familles sont également discutées dans ce travail.



Le quatrième chapitre porte spécifiquement sur l'effet de la grande mobilité spatiale sur la qualité du lien conjugal. Comme pour le précédent article, les données sont issues de l'enquête « Job Mobilities and Family Lives in Europe », mais cette fois à l'échelle de trois pays européens : la France, l'Allemagne et la Suisse. La principale interrogation qui est posée dans cette étude est de savoir si les couples où l'un des conjoints se déplace régulièrement pour son travail sur de longues distances (pendularité quotidienne ou hebdomadaire, voyages professionnels, relation de couple à distance) ont une satisfaction conjugale moindre et des conflits conjugaux plus fréquents que les couples sédentaires. La grande mobilité spatiale peut en effet renforcer les frictions entre vie professionnelle et vie familiale. Les couples confrontés à la mobilité spatiale régulière d'un de ses membres doivent souvent faire face à un stress plus important (par exemple Blickle 2005), un investissement moindre du partenaire mobile dans les tâches familiales (Schneider et al, 2002 ; Vincent et al., 2010) ou encore de plus grandes difficultés dans l'organisation familiale quotidienne et la crainte de rupture conjugale en situation d'éloignement géographique (Biehl et al. 2005 ; Collmer, 2002, 2005 ; Schneider et al., 2002). De plus, les recherches sur le fonctionnement conjugal ont montré que les couples mettant l'accent sur une forte autonomie entre les deux partenaires présentent une plus faible satisfaction que les couples fusionnels (Widmer et al., 2003, 2006).



Le cinquième et dernier chapitre **« Does geographical distance from the father matter in post-divorce families? Effects of the non-resident father's residential proximity on co-parenting and the child's well-being »** a pour objet l'éloignement géographique du père non-résident au sein des familles recomposées et son effet sur la qualité du lien père-enfant. Les données utilisées dans cette étude proviennent de l'enquête « Social capital and family processes as predictors of stepfamily outcomes » (StepOut). Deux variables en

lien avec l'enfant ont été considérées : le co-parentage mesurant le degré de promotion que fait la mère du père auprès de son enfant ainsi que les difficultés émotionnelles et de comportement chez l'enfant. L'hypothèse centrale avancée dans cette étude est que la proximité résidentielle du père favorise un bon co-parentage et que ce dernier comportement influence à son tour positivement le développement de l'enfant. La qualité du lien père-enfant n'a pas été directement mesurée. Pourtant, l'investissement important que le père doit consacrer dans la relation (en face à face) avec son enfant suggère que la distance géographique ne peut pas être ici annulée. Seuls les pères vivant proches de leur enfant seraient en mesure de s'impliquer significativement dans la relation affective et éducative avec leur enfant et ainsi favoriser l'unité parentale au sein de la famille recomposée et le bon développement de l'enfant. Un effet négatif de l'éloignement du père sur le co-parentage et le développement de l'enfant peut ainsi être interprété comme le résultat d'une moindre implication des pères vivant éloignés de leur enfant par rapport à ceux vivant à proximité. Les recherches antérieures sur les familles post-divorce a en effet montré une corrélation étroite entre un investissement qualitatif moindre du père dans la relation avec son enfant (proximité émotionnelle basse, faible soutien, autorité absente), un co-parentage faible voire conflictuel et des difficultés émotionnelles et comportementales importantes chez l'enfant (voir par ex. Amato et Gilbreth, 1999 ; Teubert et Pinquart, 2010; Whiteside et Becker, 2000).

L'ensemble des articles interrogent fondamentalement la mesure dans laquelle les liens intimes et familiaux se perpétuent et se transforment sous l'effet de la mobilité spatiale et de l'éloignement géographique. Comment maintenir le contact, mais également l'intimité, c'est-à-dire la connaissance personnelle de l'autre, la confiance interpersonnelle, l'affection, la solidarité ou encore la reconnaissance par l'autre, dans les relations à distance et dans un monde mobile ? Construit-on une autre intimité et un autre « doing family » ou alors mobilité spatiale et famille ne sont-elles vouées qu'à s'accommoder l'une à l'autre sans pouvoir s'ajuster ?

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Introduction

The increase in individual spatial mobility practices

In our modern societies certain structural changes (dual-earner households, greater job instability and flexibility, economic globalization and the centralization of jobs in urban areas to name a few) have resulted in the both tremendous and rapid development of spatial mobility practices. Over the past few decades, this phenomenon has continued to accelerate. What has changed is not the number of daily commute trips – which has remained stable at three to four for a century now – but rather the spatial range of these trips and time spent traveling, both of which have increased considerably (Crozet, 2011). This rapid development of mobility is not only spatially but socially as well. While just a half century ago intensive mobility practices concerned only the two extreme rungs of the social ladder (professional elites on the one side, vagabonds and migrants from poor countries on the other), today it touches a much broader range of social categories (Levy et al., 1997; Schneider and Meil, 2008). Quantifying spatial mobility is nonetheless difficult, due to the diversity of its forms. The speed potentials of transportation and telecommunications systems in particular have made for more complex, more personalized mobile living arrangements. Multiple workplaces and multiple residential locations (Duchêne-Lacroix, 2007) as well as the use of multiple means of transportation are no longer rare. In a long-term perspective, career trajectories are likewise becoming more complex, with an increase in fixed period and short-term contracts, both of which tend to be associated with increased travel (Callaghan, 1997).

Fundamentally speaking, spatial mobility practices are an ambivalent social phenomenon and largely correspond to the new model of social success, expressed as a constant renewal of plans and projects (Boltanski and Chiapello, 1999). Nowadays, career goals focus less on achieving a particular status in the hierarchical structure and more on being ready to “jump” from one project to the other, “surfing” as it were from one enviable position to another in a changing environment. Spatial mobility’s role in this is new, echoing the increase in freedom and individual autonomy in our modern societies. Thus do spatial mobility and the conquest of mobility serve as means of freeing ourselves from the spatial-temporal constraints associated with our environment and accessing the many choices and possibilities that post-modern societies have to offer (Canzler et al., 2008). Once a way of guaranteeing national cohesion and regional continuity (Boudreau, 2011), today spatial mobility is advocated at the national level as a way of increasing individuals’ employability, especially that of fragile populations living off of welfare (Orfeuil, 2010). For Harvey (1989, 2001), the spatial mobility of workers is inherent to capitalism, which results in the economic development of certain areas and the disappearance of others. Workers are then obliged to be mobile in order to go where the capital is. While the movement of capital and individuals once took place over the span of a

generation or more, the recent acceleration of this phenomenon now makes spatial mobility necessary over the course of a given individual's career. And yet, parallel to this requirement to move more, one cannot help but notice that intensive mobility/commuting practices are undesirable to most people, regardless of their form. Only a small percentage of the working population claims to be willing to move on a regular basis for a (better) job, though this percentage varies depending on the national context (Schneider and Meil, 2008; Viry and Vincent-Geslin, forthcoming). This small category of individuals mostly consists of young, highly qualified individuals without children or older men who have been "on the road" for a number of years. The willingness to change regions or countries is even more limited. In the 25 nations of the European Union, 80% and 98% of citizens respectively live in the region or country where they were born (Eurostat, 2006). This weak propensity to move can for the most part be explained by the constraints spatial mobility puts on social and family relationships, which are often tied to a specific location. The ambivalence of spatial mobility is a reflection on the contradictory nature of individual success (often socially lauded) versus family/interpersonal success (often stated by individuals).

One of the important consequences of this ambivalence is the reversibility of forms of spatial mobility. In order to conciliate strong, localized, interpersonal ties with a workplace that is far away, individuals use the speed potentials of transportation and telecommunications systems to substitute more definitive forms of mobility, like relocation or migration, for more reversible ones, like commuting and business travel (Kaufmann et al., 2006; Montulet and Kaufmann 2004; Kaufmann and Montulet 2008). Traveling by high-speed train, highway or plane tends as such to make spaces reversible, insomuch as well-established social ties can be maintained through co-presence. Individuals thus decide to commute rather than move in order to maintain friendship and neighborhood ties, care for aging parents, allow their children to continue attending the local school, and conciliate two jobs within the household. Reversible forms are therefore associated, paradoxically, with sedentary residential lifestyles (Kaufmann, 2008). These conciliatory strategies nonetheless occasion new constraints for mobile individuals and their social networks. Long trips and frequent absences from the home do have an impact on mobile individuals' investment in their social relationships, as well as on their involvement in family and community life. As such, increased spatial mobility, whether reversible or residential, challenges the family's development and organization and social integration alike.

Social ties in a mobile world

An examination of the issue of social ties in a mobile world leads to a first observation: the increase in the speed of movement and communications has not eliminated the effects of distance on interpersonal relationships. To begin, this phenomenon can in short be explained by the fact that social ties – and close ties even more so – cannot be forged solely via information and communications technologies (ICTs). Forging and maintaining long-distance relationships also requires moments of physical co-presence, even if only

occasional (Cass et al., 2005; Larsen et al., 2006; Urry, 2003). Such moments often occur during certain events of symbolic importance (weddings, birthdays and other celebrations). Interpersonal trust, the need to show others our interest in spending time together, professional and personal obligations and the sharing of emotions through touch or body language make face-to-face conversations essential to the building and maintenance of social ties and intimacy (Urry, 2003). The marked drop in frequency of contact (both face-to-face and at a distance) at an interpersonal distance of just a few kilometers demonstrates the fact that high-speed transportation and telecommunications systems do not allow us to radically transcend physical interpersonal distances (Hampton and Wellman, 2002; Mok et al., 2010; Wellman, 1996).

The second reason has to do with the phenomenon mentioned earlier, that the increase in the speed of transportation goes hand in hand with the growing demand to be mobile. Rapid gains in speed of travel have largely been canceled out by an increase in distances traveled in order to get in touch with others. Urban sprawl, perpetuated by the desire for single-family homes and an explosion in real estate prices in downtown areas, illustrates this fact. What has changed in interpersonal relationships is not the suppression of distances but the fact that social ties are more and more often built on and maintained by individual spatial mobility (Larsen et al., 2006; Kaufmann et al., 2006). The desire and/or obligation to combine activities that, socially and spatially, were still irreconcilable prior to the era of high speed (Urry, 2007a) obliges individuals to be increasingly mobile in order to be socially and professionally integrated. Nowadays social ties are less local and are less often built in delimited spaces (territories). Instead, we see more and more long-distance relationships, which are built in reticular spaces (networks or flows) (Kaufmann et al., 2006; Larsen et al. 2006; Lévy, 1999; Montulet, 1998; Wellman, 2001). It is not only the physical distance separating individuals that counts, but the latter's connectivity to transportation and telecommunications systems and their propensity to use them to overcome this distance. Taking the example of an adult child who finds himself separated from his or her parents, actors' ability to utilize the potentials of spatial mobility is likewise crucial for maintaining the parent-child relationship.

In this situation, the ability (not equally distributed) to be mobile, or *motility* (Kaufmann, 2002), becomes an issue of social equality. Motility is the sum of those factors that define the potential to be mobile in space, including physical capacities, the desire to move, transportation and telecommunications infrastructures and access to them and acquired skills such as driving, languages, etc. Motility often remains in a latent state and is only transformed into movement at opportune times. *Network capital*, which can be defined as an individual's aptitude for utilizing means of transportation and telecommunications for developing and maintaining long-distance relationships, is a concept related to motility (Larsen et al. 2006; Urry, 2007b). When such aptitude is lacking, the risk of social isolation is great (Cass et al., 2005; Kenyon, 2006; Le Breton, 2005). Conversely, different studies on independent journalists (Kesselring, 2005, 2006), media professionals (Wittel, 2001), architects and engineers (Kennedy, 2004, 2005) showed that these individuals, though mobile in different ways, were able to maintain and develop broad social networks. Their highly-

developed spatial mobility skills, indispensable in their respective professions, allowed them to maintain ties in their communities of origin while enriching their networks through new contacts, often made in the professional world. In this *network sociality* ties are highly individualized, fluctuating, are less based on a common past (and more so on plans and projects) and are inseparable from mobile technologies (Elliott and Urry, 2010; Urry, 2003; Wittel, 2001).

Can the relationship dynamics observed for these independent, highly-qualified professionals be taken as a general rule for all families faced with the intensive mobility practices of one or several of its members? Do these *pioneers of spatial mobility* augur the family relationships of tomorrow, where the distinction between professional and personal ties will become increasingly blurred, and where personalized links and short-term contracts will triumph over collective and durable relationships? There is no guarantee. This mode of social integration involves not only strong motility, but strong individual autonomy as well, which tends to conflict with the strong interdependence of family relations and intimate relationships, characterized by strong normative expectations and obligations, in general. And even if spatial mobility's potential is a maximum, it nonetheless remains difficult to count on someone who is far away to be actively involved in the upkeep of the couple, the education of the children or the maintaining of friendships and neighborly relations.

Reconciling spatial mobility and family

Though in its infancy, research in this area reveals several strategies used by mobile individuals and their families to conciliate and unify mobile and family life. These conciliatory strategies go hand in hand with tensions between individual autonomy and family interdependence. Employing one or the other of these strategies is the result of complex arbitration mechanisms between the spatial-temporal constraints associated with different professional and family activities, attachment to place, the individual and group resources available to actors (financial, relational and motility), the family functioning and even the power relationship between partners. Mobile people (along with their families) are ultimately caught up in a system of constraints that are more or less invisible (the majority being unconscious) and guide their choices they perceive as something "restrictive," "normal," "tolerable" or "advantageous." A two-hour daily commute, for instance, is not chosen on a purely elective basis. This, however, does not mean that some commuters do not see the advantages of having one (a better job, getting away from the family environment and have more free time, etc.). Such conciliatory strategies are thus a way of adapting to a system of constraints.

Based on the literature, seven such strategies can be observed.

1) *Choosing to practice a specific form of spatial mobility*. In certain situations, individuals opt to commute rather than move, so as to maintain the family group's integration in its social environment (housing, school, neighborhood, network of family and friends (see above).

2) *Interrupting (or decreasing) spatial mobility when a child comes into the family*. Less anchored in the social fabric of their residential areas than parents, couples without children are more apt to travel greater distances (Courgeau, 1989; Kulu, 2005; Schneider et al., 2002; Schneider and Meil, 2008). Upon transition into parenthood, the overwhelming demands of childrearing (both materially and relationally) lead many parents, especially mothers, to decrease their intensive mobility practices.

3) *Delaying parenthood, or opting not to have children.* In order to pursue a career that demands flexibility in terms of both time and space, some couples tend to delay the arrival of a first child (Schneider et al., 2002). This strategy carries with it the risk of remaining childless or having fewer children than initially desired, especially for women who must likewise consider their biological clocks (Quesnel-Vallée and Morgan, 2003).

4) *Transferring domestic and educative tasks to the non-mobile partner, usually the woman.* The frequent absence of the mobile male partner for regular business trips and a career focus tends to lead to a more gendered division of professional and family roles between partners (Schneider et al., 2002; Schneider and Meil, 2008).

5) *Decreasing investment in friendship ties and community involvement.* The consequence of this strategy is a focus on the family. With the exception of long-distance couples (often without children), who generally have a relatively large network of friends, individuals who move regularly and for long periods of time for job reasons tend to reduce contact outside of the professional and family circles (Schneider et al., 2002). The role of sociability in an extended network (friends, associations, neighbors, distant relatives) then is often shouldered by the non-mobile partner, usually the woman (Becerril, 2003; Collmer, 2005; Schneider et al., 2002; Soriano, 2005).

6) *Compensating for the absence of a mobile person by a consequent mobilization of the social network, especially the family network.* This strategy is frequently employed in instances where the woman travels regularly for business reasons and calls upon her personal network for the realization of diverse family tasks (housing, childcare) (Vincent et al., 2010). In this scenario, the woman's spatial mobility is often the result of a compromise between the realization of her career and the man's maintaining of a professional activity, forcing the couple to seek support outside of the home (Vincent et al., 2010). Numerous studies on migrations likewise highlight the important role local networks play in host countries and family networks play in the country of origin (notably: Bonvalet and Maison, 1999; Chamberlain, 1995; Litwak, 1960; Mason, 1999, 2004). Such networks are important sources of financial, practical and emotional support for migrants.

7) *Developing a conjugal relationship based on the partners' autonomy.* As their spatial mobility experiences lead them apart geographically, partners

develop a couple's functioning that focuses on individual autonomy and time spent outside the couple, rather than on the similitude of their interests and time they spend together (Kaufmann and Widmer, 2006). Empirical validation of this strategy of adaptation is nonetheless missing. An alternative hypothesis is that it is more a consequence of selection; partners who put a great deal of importance on their autonomy – a characteristic essentially acquired before their experience of spatial mobility – tend to travel more regularly than do couples emphasizing time spent together, which tend to change domiciles or remain sedentary.

Nevertheless, it is important to note that these findings are essentially based on cross-sectional (or retrospective) studies that do not allow us to analyze families' development over time or how they adapt to their experience of spatial mobility. These gaps are all the more apparent as mobility practices have evolved rapidly over these past decades. It is therefore possible that these investigations confused the effects attributed to the life stage with cohort effects or selection effects with adaptation effects.

Data

Three quantitative data bases were used in this doctoral thesis. The first came from the 2005 MOSAiCH survey, which included a representative sample of the resident population in Switzerland aged 18 or older. 1078 individuals were questioned face-to-face using a standardized questionnaire. In particular, each respondent had to name the individuals (four max.) with whom he or she had "discussed important matters (work, family, politics, etc.) over the past six months," as well as the emotional support exchanged between the members of his or her network (the respondent included). Varied information on the individuals cited was also collected (gender, age, relationship to the respondent, number of years of acquaintance, etc.). Spatially speaking, respondents were asked to name their current residential location, their current workplace and where they lived at age 14 (municipalities). This same information was also collected for each individual they cited in their network.. Based on this information, driving distances were calculated from the municipality's geographical centre using routing software modeling the Swiss road network. The respondent's commuting distance, the distance between his or her current place of residence and that at age 14 (residential mobility), as well as the average distance separating the places of residence of the different members of the network – could then be calculated. It was thus based on very small personal networks comprised primarily of intimate ties that the network's spatiality, relationship structure (density, etc.), composition, size (number of support ties) and the quality of these ties (measured based on the probability that a "discussion" tie was also a supportive one) could be measured.

The second data base came from the "Job Mobilities and Family Lives in Europe" (JobMob) European research program, which was the first quantitative, six-country survey to look at the interplay between mobility and family life. Each national data base was comprised of two samples, the first representing the country's resident population (aged 25-54) and a second in which only

individuals (aged 25-54) who were mobile for professional reasons were interviewed. The oversample of mobile individuals was then underweighted in order to obtain representative national samples, but to nonetheless include a sufficient number of mobile persons to obtain a satisfactory statistical power. For this thesis, only the German (n=1663), French (n=1223) and Swiss (n=1007) data were used. The individuals, all randomly selected, were interviewed by telephone in 2007 using a standardized questionnaire. For the purposes of this survey, job-related spatial mobility was defined by the intensity of travel and measured either in terms of travel time/distance or repeated absences from the (primary) residence. The forms of mobility could be either reversible or irreversible. More precisely, four forms of job-related mobility were considered: 1) individuals who had recently moved (in the three years prior to the interview) for professional reasons, either within the country (at a geographical distance of at least 50 kilometers) or abroad, 2) daily long-distance commuters, with home-work trips (roundtrip) of at least two hours a day, 3) individuals in a long-distance relationship for professional reasons (trip between the two residences equivalent to one hour minimum), and finally 4) any form of professional travel requiring the individual to spend at least 60 nights a year away from the principal residence (dual residency, business trips, seasonal work, etc.). The last category was referred to as “overnighters”

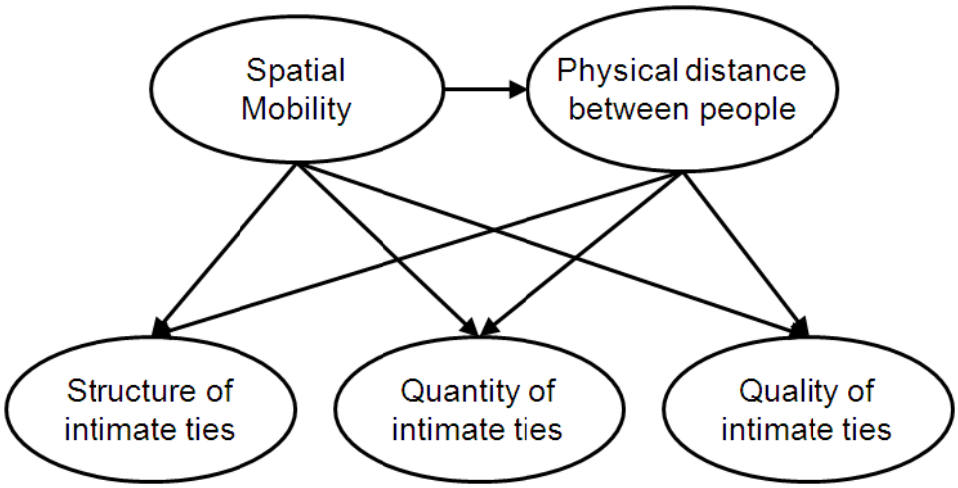
The third data base came from the “Social capital and family processes as predictors of stepfamily outcomes” (StepOut) survey (Widmer and Favez, 2011). This interdisciplinary study combining sociology and clinical psychology is the first large-scale, quantitative Swiss survey comparing stepfamilies with first-time families. The study focuses on the interplay between family configurations, social capital, co-parenting and the child’s development. For the purposes of this thesis however, only the stepfamily sample was considered. 150 women with steady partners and who lived with at least once biological child (age 5 to 14) from a previous relationship were interviewed face-to-face between 2009 and 2010. The respondent or resident partner could have other children, either with the current partner or with a previous one, living with them or elsewhere. All of the women interviewed lived in the canton of Geneva at the time of the interview and were selected randomly. The fathers were not interviewed for this study. The driving distance between the two ex-partners’ residences was calculated using routing software, based on information about the mother and father’s current residential location (municipality), from the municipalities’ geographical center. The mothers likewise had to estimate to what extent they promoted a positive image of the father to the child and positive interactions within the parents-child triad in the child’s presence. A co-parenting scale was built based on this information.

Research questions

This doctoral thesis addresses two fundamental research questions:

1) What is the impact of spatial mobility practices on physical distance between individuals and on the structure, quantity and quality of intimate ties?

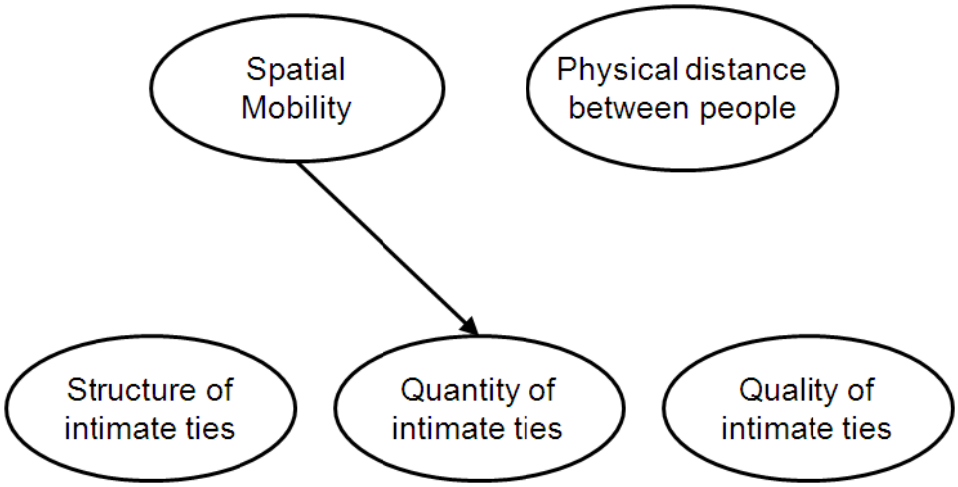
2) What is the impact of the physical distance between individuals on the structure, quantity and quality of intimate ties?



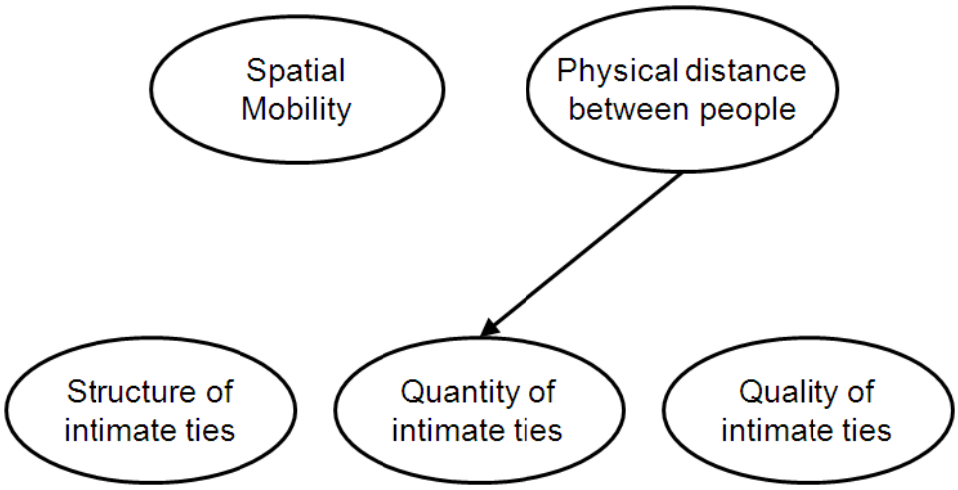
The five articles that comprise the five chapters of this doctoral thesis state these two fundamental questions in different ways. While some of the articles focus on a specific forms of spatial mobility (residential mobility or commuting) or family ties (conjugal or father-child relationships), others focus on multiple forms of spatial mobility and intimate relationships in general. The first two chapters, "**Residential mobility and spatial dispersion of personal networks: effects on social support**" (Viry, 2011) and "**Social integration faced with commuting: more widespread and less dense support networks**" (Viry et al., 2009a) respectively address the impact of living far from one's place of origin and workplace on the spatial dispersion of social networks and on the structure, quantity and quality[2] of emotional support ties between network members. The data used in these studies comes from the 2005 MOSAiCH survey. The central hypothesis posits that residential mobility and daily commuting result in the rebuilding of relational integration on a broader spatial scale, which in turn favors a relational structure wherein personal contacts support one another less than they do in sedentary/contiguous contexts. These forms of mobility, without necessarily resulting in a lack of support (the quantity and quality of ties are unchanged), would favor more individualized social ties (Urry, 2003; Wittel, 2001) and *a bridging social capital*, where a given mobile individual becomes a compulsory intermediary between his or her personal contacts (Burt, 1992; Putnam, 2000; Widmer, 2006; Woolcock and Narayan, 2000).

[2] In these two studies, the quality of ties was measured by the probability that the relationship between a respondent and one of the people cited in his or her network was supportive.

The third chapter, **"La grande mobilité géographique pour des raisons professionnelles en Suisse: une étape de vie pré-parentale?"** (Viry et al., 2009b), and the fourth chapter, "**Does it matter for us that my partner or I commute? Spatial mobility for job reasons and the quality of conjugal relationships in France, Germany, and Switzerland"** (Viry et al., 2010), both look more closely at the impact of spatial mobility practices on the quality of conjugal ties. Mobility practices are defined here as any form of long-distance spatial mobility for job-related reasons. The data comes from the European project "Job Mobilities and Family Lives in Europe" (JobMob). The third article looks more specifically at the links between family life and mobile life in Switzerland. The main goal of this study was to test two concurrent hypotheses, or, as stated earlier, two concurrent conciliatory strategies. The first posits that regular travel essentially takes place in situations wherein the individuals in question are parents, the goal being to maintain social networks and a stable environment. Because of the strong residential anchoring that results from the presence of children, these individuals tend to choose to be daily or weekly commuters in order to respond to the demands of the job market. The second hypothesis on the contrary argues that spatial mobility for job reasons tends to takes place before the arrival of a first child, when individuals' and couples' flexibility in terms of time and space and willingness to move is greater than that when a child is present. This study likewise explores the extent to which spatial mobility practices result in an unequal division of labor between the professional and domestic spheres when one of the partners is mobile (strategy 3 of mobility-family conciliation). The characteristics of Switzerland with regard to family policies, the job market and territory and their possible influence on families' conciliatory strategies are also discussed here.



The fourth chapter focuses specifically on the impact of highly mobile living arrangements on the quality of conjugal ties. As with the previous article, the data comes from the survey "Job Mobilities and Family Lives in Europe." This time, however, we looked at three countries—France, Germany and Switzerland. Our main goal was to find out if couples wherein one partner is mobile for job reasons (daily/weekly commuting, business travel or people in long-distance relationships) are less satisfied and have greater conjugal conflict than sedentary couples. Highly spatial mobility does indeed reinforce tensions between job and family life. Couples that deal with the regular mobility of one partner often experience greater stress (Blickle 2005, for example), less investment from the mobile partner with regard to family tasks (Schneider et al, 2002; Vincent et al., 2010), greater difficulty organizing the family's day-to-day life and fear of conjugal breakdown in instances of geographical distance (Biehl et al. 2005; Collmer, 2002, 2005; Schneider et al., 2002). Moreover, studies on conjugal functioning show that couples that stress the importance of individual autonomy are characterized by a lower satisfaction than couples emphasizing time spent together and similarity of orientations and ideas (Widmer et al., 2003, 2006).



The fifth and final chapter, "**Does geographical distance from the father matter in post-divorce families? Effects of the non-resident father's residential proximity on co-parenting and the child's well-being**" looks at physical distance of non-resident fathers in stepfamilies and its impact on the quality of the father-child relationship. The data used in this study come from the "Social capital and family processes as predictors of stepfamily outcomes" (StepOut) survey. Two variables related to the child were considered: the co-parenting, which measured the extent to which the mother spoke favorably of the biological father to the child, and the child's emotional/behavioral difficulties.

The main hypothesis is that the father's residential proximity favors good co-parenting, which in turn positively effects the child's development. The quality of the father-child link was not directly measured. However, the important investment the father must make in his (face-to-face) relationship with the child suggests that physical distance cannot be here nullified. Only fathers who live close to their children could be significantly involved in an emotional/educational relationship with the latter, consequently fostering a unit co-parenting in the stepfamily and lending to low difficulties in the child development. The negative impact of the father's distance on co-parenting and the child's development can be interpreted as a consequence of less involvement of fathers who lived far away from their children versus those who lived close. Prior research on divorced families has indeed shown a close link between a lesser qualitative investment by fathers in their relationships with their children (weak emotional ties, weak support, lack of authority, etc.), weak or conflictual co-parenting and important emotional/behavioral difficulties in the child (see for example Amato and Gilbreth, 1999; Teubert and Pinquart, 2010; Whiteside and Becker, 2000).

All of these articles fundamentally question the extent to which intimate and family ties are maintained and change under the effect of spatial mobility and physical distance. How do we maintain not only contact but intimacy (i.e. personal knowledge of others, interpersonal trust, affection, solidarity or recognition from others) in long-distance relationships and a mobile world? Do we build another kind of intimacy and "doing family" in the mobile world, or do spatial mobility and families just have to get used to one another without being able to adapt to each other?

References

See the French version page 12

Chapter 1

Residential mobility and the spatial dispersion of personal networks: effects on social support

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1.1 Abstract

Using a representative national sample of personal networks, this article explores how the spatial dispersion of networks, residential mobility and social support are linked. Three issues will be addressed here. Firstly, how is the spatial dispersion of personal networks related to individuals' social characteristics, network composition and residential mobility? Secondly, how do the spatial dispersion of networks, residential mobility and their combined effect influence the number and (thirdly) the structure of emotional support ties? Results showed that the extent of the support was affected neither by the geographical distribution of the networks nor by residential mobility. Living far from one's birthplace, however, exerted two distinct, and opposite effects on the support network structure. On the one hand, mobility led to high spatial dispersion of personal contacts, which in turn favored a sparsely knit network centered around the mobile individual. On the other hand, by controlling for the effect of distance between the contacts, we found that individuals that cited long-distance ties tended to be part of more transitive support networks than those that cited local ties. We interpreted the latter effect as evidence that transitive ties may survive greater spatial distances than intransitive ones. These findings are discussed in view of spatial mobility and social network research.

1.2 Introduction

The ever-increasing need to be spatially mobile – requisite of highly advanced societies – challenges people to find new ways of developing social ties. Less integrated within the local community than sedentary individuals, mobile individuals have the challenge of maintaining their own social ties in a broader spatial range. In this regard, spatial mobility has an ambivalent nature. On the one hand, the spatial dispersion of friends and family is seen as an obstacle to the building of social ties, as it minimizes opportunities for sharing lasting, intimate relationships outside of the household. On the other hand, moving increases the possibility of making new contacts with select individuals and joining new groups outside the local community.

Recently, this debate has received considerable attention from both mobility and social network analysts (e.g. Carrasco et al. 2008; Kesselring, 2006; Larsen et al. 2006; Lubbers et al. 2010; Mok et al., 2007, 2010). One of the important issues here is how networks change in size and structure as people move. One hypothesis argues that mobile people belong to networks that, without

necessarily being different in size, are fragmented, i.e. structured around mutually disconnected clusters of ties and personal contacts stemming from their mobility trajectory. Their interpersonal ties in several places prevent them from bringing their various social circles together. Moreover, the social networks developed by mobile people far from their place of origin are likely built around potentially new roles and foci (i.e. new people, places, social positions, (national) cultures or group memberships) (Feld, 1981). We can then assume that these social circles remain relatively disconnected from the original network, not only because they are removed from it, but also because they were built in a different social context. Dispersed both geographically and socially, the personal networks of mobile people are therefore more individualized, less overlapping and more sparsely knit than the personal networks of non-mobile people (Larsen et al., 2006; Urry, 2003; Wellman, 2002; Wittel, 2001; see also the definition of "liberated community" by Wellman et al. 1988).

The fragmentation hypothesis is interesting because it suggests a series of important interrelational consequences in a mobile world. To begin, individuals in these fragmented networks are less restricted in terms of their behavior than those in networks, which are characterized by the collective nature of normative control: if a network member fails to conform to the network's norms, everybody knows everybody else well, and all of its members may react jointly (Coleman, 1988, 1990; Milardo, 1988). Taking advantage of the greater autonomy, individuals in fragmented networks can take advantage of intersecting social circles (Simmel, 1999), potentially leading to the production of forms of geographical multiple membership. With this relatively new form of social integration – specific to modern societies –, individuals can develop an original identity based on a confluence of physically distant, relatively disconnected influences (see e.g. Fischer, 1975; Kadushin, 1966). Secondly, these individuals can also benefit from their position as compulsory intermediary between their network members (Burt, 1992), meaning they can broker or mediate between people who are not directly linked, using "tertius gaudens" strategies (i.e., exploit those disconnected parties to their benefit). Thirdly, social ties within fragmented networks are more likely to bridge new clusters and, as such, non-redundant, non-local resources (Granovetter, 1973). A fourth consequence, however, is that these individuals are less likely to benefit from collective mutual support. Unlike densely knit networks, where trust, obligations and mutual aid are reinforced by collective constraints and direct links, members of fragmented networks are less apt to coordinate their efforts when it comes to helping other network members. In such cases, the individual cannot benefit from collective solidarity practices and must deal with each tie separately (Wellman and Frank, 2000). Lastly, fragmented networks also hamper communications by reducing the number of information channels and multiplying the number of intermediaries between any two network members (Baker, 1984).

Although social network analysts have long investigated the impact of geographical distance on interpersonal ties (for pioneering work, see i.e. Fischer, 1982; Wellman and Leighton, 1979; Wellman, 1990; Wellman and Wortley, 1990), large-scale surveys linking the geography and structure of social networks and mobility are still limited. Empirical studies have, thus far, largely focused on specific professional categories characterized by a strong propensity

for movement (migrants, highly qualified professions, long-distance commuters). As such, a systematic overview of representative data is missing. This article aims to fill this gap by examining the fragmentation hypothesis using survey data on personal networks in Switzerland. We began by assessing the influence of individuals' social characteristics, network composition and residential mobility on the spatial dispersion of networks. We then investigated the effects of this dispersion and of living far from one's birthplace on the number and structure of support ties.

1.3 Spatial mobility and the transformation of interpersonal space

Sociological studies have shown that social ties in highly advanced societies are built and maintained based not only on proximity, but also distance, with increasingly facilitated access to transportation and communication systems (Castells, 2000; Frei and Axhausen, 2007; Hampton and Wellman, 2002; Larsen et al., 2006; Urry, 2007a; Wellman, 1996, 1999). Consequently, the capacity to build and sustain social ties with individuals that are not necessarily in the immediate vicinity becomes crucial in terms of connecting people (i.e., producing social capital) (Larsen et al., 2006; Urry, 2007b; Wellman, 2001). Because occasional physical co-presence and face-to-face contact are nonetheless necessary for maintaining long-distance ties (Cass et al., 2005; Larsen et al., 2006; Urry, 2003), this also means being able to be spatially mobile (Kaufmann, 2002).

The literature shows that this ability is closely linked to abundant resources and high-level positions in the social structure (social status, economic capital, education) (Carrasco et al., 2008; Cass et al., 2005; Kaufmann et al., 2005; Kenyon, 2006; Le Breton, 2005; Urry, 2007b). Studies on freelance journalists (Bonß et al. 2004; Kesselring, 2005), media workers (Wittel, 2001) and transnational architects and engineers (Kennedy 2004, 2005) have shown that these individuals, though highly mobile in different ways, are able to maintain and develop an extensive social network, due in part to job-related contacts. The interpersonal skills requisite for such careers, especially the ability to use high-speed transportation and communication technologies, allow some individuals to maintain relationships with relatives and friends in their communities of origin. Ties within this "network sociality" (Urry, 2003; Wittel, 2001) are considered particularly individualized and changeable, based less on a shared, common past or background and more on mobile technologies, including cars, planes, mobile phones, email, etc.

Using a random sample of personal networks, Carrasco et al. (2008) showed however that, when compared with individual characteristics, the network structure only slightly explains the distance between network members. Other recent studies have focused on how geographical distance affects frequency of contact and provision of support between network members. As Axhausen and Frei's work (2007) demonstrates, distance still matters, despite the important role of high-speed mobile technologies. Mok et al. (2007, 2010) showed, for instance, that the frequency of face-to-face and telephone contact between individuals in a given network steadily decreased at distances of approximately

five and 100 miles respectively. Email contact and the provision of social support were, for the most part, not affected by distance (except marginally, with regard to material support).

Many works on migration also stress the importance of long-distance ties between immigrants and their extended families, which serve as emotional, financial and practical support providers (among others: Bonvalet and Maison, 1999; Chamberlain, 1995; Litwak, 1960; Mason, 1999, 2004). There is also some evidence that individuals that frequently relocate invest little time in their local communities and are more likely to maintain close links with their distant families, rather than establish contacts with new neighbors (Collmer, 2002, 2005; Pelizäus-Hoffmeister, 2001; Shklovski, 2007). Carrasco et al. (2008) found evidence that, although recent immigrants tended to have more distant personal contacts in general than non-immigrants, the number dwindled when only those with whom they had interacted face-to-face in the past year were considered. The authors showed that it was the duration of residence in a given city that influenced the geographical concentration of personal contacts. This finding is consistent with longitudinal studies highlighting the strong network reconstruction tendencies of immigrants in a host country; physical relocation favors turnover with regard to personal relationships, especially peripheral ones, rather than increasing or decreasing in the actual number of contacts (Butler et al., 1973; Larner, 1990; Magdol, 2000). Lubbers et al.'s (2010) longitudinal analysis contributed to understanding changes in immigrants' personal networks, which showed stability in terms of composition and structure, despite a high rate of turnover in terms of personal contacts. Nonetheless, they also observed that immigrants' personal networks became more transitive ("my contacts' contacts become my contacts") over time, due both to new ties between their contacts and the acquisition of new contacts through existing ones.

Finally, earlier research showed that residential mobility may also lead to a shift in the composition of personal networks. Scholars have emphasized that vertical family ties (parents and children) are more likely to survive great distances than relationships with friends, collaterals (siblings, cousins, etc.) and a fortiori weaker relations (neighbors, coworkers, and other acquaintances) (Bonvalet and Maison, 1999; Coenen-Huther et al., 1994; Collmer, 2002, 2005; Grossetti, 2007). This finding can be explained by normative expectations with regard to relatives and the density of connection of kinship systems (Burt, 2000; Carrasco et al., 2008; Wellman, 1990; Wellman and Wortley, 1990).

This study addresses the question of how residential mobility and the spatial dispersion of personal networks affect support behavior between network members. First, we expect that mobile individuals on the whole have more long-distance personal relationships than non-mobile people, regardless of social characteristics or network composition. Due to their residential mobility, these individuals build relationships in a broader geographical range. Their ability to use transportation and telecommunications systems allows them to maintain long-distance confidants, especially kin from their networks of origin.

Secondly, although frequency of contact is likely to diminish with distance, we hypothesize that mobile individuals exchange as much support as non-mobile

ones within their personal networks. As residential mobility leads to turnover in personal contacts, geographically distant personal ties are expected to be as supportive as local ties, due to the selection effect: only the strongest ties would be kept despite distance, whereas weaker ones would be replaced with local relationships over time.

Thirdly, we expect less support between the personal contacts of mobile people than of non-mobile ones, thus leading to fragmented personal networks. Their interpersonal ties in several places and around different roles would prevent them from putting their personal contacts in touch with one another.

1.4 Data and measures

The 2005 MOSAiCH[3] survey included the Swiss portion of the International Social Survey Program's (ISSP) annual survey. 1,078 persons living in Switzerland aged 18 years old and older were randomly selected from the Swiss telephone directory (response rate=50.1%) and interviewed face-to-face based on a standardized questionnaire. The Kish method (see Kish, 1965) was used to select respondents amongst eligible household members. Relative to the Swiss population as a whole, individuals living alone or in two-person households were overrepresented. Using the 1985/2004 General Social Survey (GSS) design (Bailey and Marsden, 1999; Burt, 1984), respondents were asked about their social networks based on the following question:

From time to time, most people discuss important matters with other people. Looking back over the past six months, who are the people with whom you discussed matters that are important to you (work, family, politics, etc.)? Just tell me their first names or initials. IF LESS THAN 4 NAMES MENTIONED, PROBE: Anyone else?

Respondents could name up to four discussion partners. About 12% of the original sample did not cite any personal contacts in their network; about 28% of the original sample cited only one (see Table 1). These findings are consistent with the level of social isolation observed in the recent study of McPherson et al. (2006), using the same "important matters" name generator. In this study, 44% of the U.S. population cited either no one or only one discussion partner. Although most people belong to rather extensive personal networks, the core of people's discussion networks centers around a small percentage of people's emotionally close, reliable ties. In this respect, studying core networks is pivotal to understanding their influence on people's behavior and resources in their everyday lives.

Only respondents who cited at least two discussion partners (n=620) were retained, in order to measure the relationship structure in networks of size three or more. Information regarding the exact residential location of the respondents at the age of 14 or the exact residential location of the contacts at the time of the interview was not included in the survey data when the location was outside Switzerland. To have detailed information about the respondents' residential

[3] Sociological Measures and Observation of Attitudes in Switzerland. This study was funded by the Swiss National Science Foundation and conducted by the Swiss Information and Data Archive Service for the Social Sciences (SIDOS).

mobility and the spatial dispersion of their networks, respondents who lived abroad at the age of 14 (n=188 of the original sample) or respondents who mentioned one or more foreign contacts (n=91 of the original sample) were thus eliminated from the analyses. After listwise deletion, data were composed of a final sample of 473 individuals for the present study (see Table 1).

Differences in the distribution of respondents between the full representative sample and the analytical sample with regard to socio-demographic characteristics are shown in Appendix A. A chi-square test showed no significant differences between the two samples on category scores. Compared to the full sample, we nevertheless observed that older respondents and those living in periurban areas were somewhat underrepresented because they were more likely to cite either no or only one personal contact. The proportion of respondents with the lowest level of education and a low income was also lower in the final sample because these individuals cited less than two discussion partners and were more likely to having grown up abroad. Finally, the proportion of those living alone and, to a lesser extent, those with university degrees was lower in the final sample as well, because they were more likely to cite one or more contacts living abroad.

Table 1

Number of personal contacts, contacts living abroad and respondents who lived abroad at the age of 14

Full sample	*n*	%	Respondents citing at least 2 personal contacts	*n*	%	Respondents citing at least 2 personal contacts, none living abroad	*n*	%
Number of personal contacts			Number of contacts living abroad			Number of respondents who lived abroad at the age of 14		
None	127	11.8	None	541	87.3			
1	299	27.7	1	60	9.7	No	473	87.4
2	189	17.5	2	14	2.3	Yes	54	10.0
3	218	20.2	3	4	0.6	Missing	14	2.6
4	213	19.8	4	1	0.1	Total	541	100
Missing	32	3.0	Total	620	100			
Total	1,078	100						

1.4.1 Number and structure of emotional support ties

Emotional support between network members was measured by asking respondents who supports who within the network. As in other cognitive network studies (Krackhardt, 1987), respondents not only estimated the support exchanged with personal contacts but also the support exchanged between contacts, based on the following questions:

Of these people, who gives you emotional or moral support through everyday difficulties, like when you are feeling a bit down or have had a hard day? And who, including yourself, gives emotional support to [first person mentioned]?" etc.

Five network indices were applied in order to investigate the number and structure of support ties. These measurements were calculated using Statnet 2 in R environment software tools (Handcock et al., 2003).

- *The number of support ties received or provided by respondents* within their personal network indicates the number of personal contacts perceived as support providers and support receivers respectively. About the same percentage of respondents named one, two or three support providers or two or three support receivers, so that scores were platykurtically distributed. The Shapiro-Wilk test for medium-sized samples (Royston, 1995) and the Jarque-Bera test, based on the kurtosis and skewness coefficients (under R) confirm the non-normal shape of the distributions (see Table 2). Therefore, the variable was dichotomized into many (3-4) and few (0-2) support ties.

- *The proportion of support ties received or given by the respondents* within their personal network was also calculated as the proportion of support providers and support receivers among personal contacts respectively. This second network index captures respondents' ability to activate their personal contacts for support. Because a large number of respondents said they exchanged support with all their contacts (about 60% of the sample for support received by respondents and about 70% for support given), the variable was skewly distributed. Moreover, small variability in the respondents' network size resulted in a limited number of modalities, so that proportion scores were not normally distributed (see Table 2). The variables were therefore dichotomized, with 1 representing 100% (all contacts activated) and 0 representing a lower percentage.

Network fragmentation was measured based on three indicators:

- *Respondents' betweenness centrality* measures the proportion of shortest paths (geodesics) between pairs of personal contacts that include the respondent. The support network here was symmetrized by replacing each unilateral or bidirectional relationship with an undirected one. Betweenness centrality captures the extent to which respondents play the role of compulsory intermediary between personal contacts and are instrumental in facilitating the spread of emotional support between them, regardless of the direction of ties. Because extreme values were overrepresented (about 42% of respondents had a centrality of 0, and 23% had a centrality of 100%), the variable was recoded at the median into weak versus strong betweenness centrality (see Table 2).

- *Density* measures the ratio of the number of support ties actually present in the network to the maximum possible number of ties that could be present if the network was complete (directed ties). Density evaluates the support network's degree of cohesion. Because quite a large number of respondents were part of a complete network (13% of the sample), scores were not normally distributed and the variable was dichotomized at the median into weak versus high density (see Table 2).

- *Transitivity* measures the proportion of possible ordered triads, obeying the (weak) transitivity condition (i.e. if a->b and b->c, then a->c) (out of those potentially intransitive). Transitivity captures the extent to which

patterns of support ties follow the logic that "If I support someone who supports someone else, I will also support this other person". This network index measures the degree of closure for all triads in the personal support network. Because extreme values were more common (about 30% of the networks had transitivity of 0, and 23% had transitivity of 100%), the variable was likewise dichotomized at the median into weak versus strong transitivity (see Table 2).

Based on the aforementioned thresholds, fragmented networks thus correspond to low-density and low-transitivity networks, in which the respondent is highly central. Core network fragmentation does not capture here the degree of disconnectedness between whole clusters of ties, but rather between that of highly influential contacts. Because network indices were dichotomized, the fragmentation hypothesis tested here postulates that an increase in the residential mobility increases the probability of having a fragmented network. The hypothesis is not the greater the residential mobility, the more fragmented the network. A recodification into three-fold scales of network structure indices (lowest score/in-between/highest score) was also tested. Results based on dichotomized, trichotomized and non-recoded variables were identical (see below).

Table 2

Descriptive statistics of network indices before dichotomization (n=473)

	Mean	*Median*	*SD*	*Range*	*Kurtosis*	*Skewness*	*Shapiro-Wilk*	*Jarque-Bera*
Number of ties received	2.30	2	1.09	0 – 4	-1.02	0.12	0.89**	22.44**
Number of ties given	2.59	3	1.06	0 – 4	-0.33	-0.54	0.89**	14.41**
% of ties received	76.99	100	29.97	0 – 100	-0.85	-0.80	0.74**	65.00**
% of ties given	86.01	100	25.93	0 – 100	2.31	-1.80	0.60**	352.74**
Betweenness centrality (%)	39.44	16.67	41.79	0 – 100	-1.56	0.41	0.78**	61.28**
Network density (%)	61.28	60	24.57	0 – 100	-0.78	0.02	0.96**	12.65**
Network transitivity (%)	53.56	60	39.79	0 – 100	-1.53	-0.26	0.84**	51.56**

*p < .05 **p < .01

1.4.2 Network spatial dispersion and residential mobility

Geographically speaking, respondents were asked about their current residential location and where they lived at age 14 (municipalities). This same information was then collected for each personal contact. Because this residential location was only collected when the respondent or the contact lived within the country, respondents who lived abroad at the age of 14 or respondents who mentioned one or more foreign contacts were not included in the analyses (see above). Based on the responses, three indicators of geographical distance (in kilometers) were computed using routing software modeling the Swiss road network:

- *Averaging the distance between the respondent's residential location and that each of their personal contacts and distance between the residential*

locations of his/her personal contacts captured the network's spatial dispersion based on two factors. The first (average distance respondent-contacts; M=21.6 km, SD=33.3 km) was relative to the relationship between the respondent and each of his/her personal contacts; the second (average distance between contacts; M=27.9 km, SD=38.0 km) was relative to the relationships between personal contacts only.

- *The distance between respondents' current residential location and their residential location at age 14* measures respondents' earlier residential mobility (M=32.0 km, SD=53.7 km). Although it does not allow us to capture variations in residential location over time, it has the advantage of measuring how far respondents live from their network of origin (kinship, childhood friends). Regardless of the number and scale of respondents' moves during adulthood, their current distance from their network of origin is relevant for studying the effects of relocation on the spatial and relational reshaping of networks, compared to individuals who still lived in the area they grew up in.

The natural logarithm of these distances was used to reduce the degree of nonlinearity and weight down long distances (assuming that the effect of distance is relatively stable from a certain distance threshold). Descriptive statistics and correlation coefficients between the variables included in the study are shown in Table 3.

Table 3

Descriptive statistics and Pearson correlations of study variables (n=473)

	Mean	*Median*	*SD*	*Range*	1	2	3	4	5	6	7	8	9
1. Number of ties received by the respondent	.41	-	.49	0-1									
2. Number of ties given by the respondent	.54	-	.50	0-1	.63**								
3. % of ties received by the respondent	.59	-	.49	0-1	.54**	.10*							
4. % of ties given by the respondent	.73	-	.45	0-1	.25**	.44**	.36**						
5. Respondents' betweenness centrality (%)	.48	-	.50	0-1	-.04	.14**	-.11*	.16**					
6. Network density (%)	.51	-	.50	0-1	.24**	.02	.61**	.42**	-.45**				
7. Network transitivity (%)	.50	-	.50	0-1	.11*	.00	.15**	.04	-.75**	.45**			
8. Average distance respondent - contacts (km) (log)	2.31	2.26	1.22	.60-5.70	.11*	.08	-.01	.04	.07	-.06	-.04		
9. Average distance between contacts (km) (log)	2.48	2.51	1.36	.05-5.26	.10*	.10*	-.03	.03	.14**	-.10*	-.10*	.89**	
10. Respondents' dist. from resid. 14 years (km) (log)	2.38	2.29	1.49	.62-5.87	.05	.05	.01	.10*	-.03	.03	.05	.40**	.31**

*p < .05 **p < .01

Note:

1) Although betweenness centrality and density indices were dichotomized at the median, the mean was not strictly equal to 0.5, given that several cases had the median value. The values of either 0 or 1 were assigned to the median category in order to divide the distribution in two relatively equal parts.
2) The minimum values for distance are not strictly equal to 0 because a value of 2 km was attributed in the situations where the departure and arrival district were identical, in order to take into account travel inside the district. In rare cases, inter-district distances were less than 2 km.

1.4.3 Control variables

Three types of factors that could potentially have a mediating effect between residential mobility, network spatial dispersion and the provision of support were considered: respondents' socio-demographical characteristics, how long the network members had known one another and network composition. For the first category, dummy variables were created to control for sex, age, education, household income, residential situation and presence of a partner or children (see Appendix A). Only information from respondents about their household income was missing (n=65). A multiple linear regression model was used to impute missing values based on respondents' work orientation (meaning of work, importance of a good salary), age, and gender, as well as work status (part-time or full-time employment), activity sector, managerial position and level of education of respondents and their partners. Duration of the contacts relationship was measured as a continuous variable, based on the average number of years respondents had known their network members (M=25 years, SD=12 years). Finally, network composition was measured by asking respondents the nature of their relationship (spouse, sibling, friend, etc.) with each of their personal contacts. Using this information, we built homogeneous groupings based on an ascending hierarchical cluster analysis, using Ward's method and squared Euclidean distances (under SPSS) (Aldenderfer and Blashfield, 1984; Everitt, 1993; Lebart et al., 1997). This method has already been used to construct typologies of network composition (see Rapkin and Luke, 1993; Widmer, 2006). Instead of dividing the observations into a predetermined number of clusters in a single step, the hierarchical procedure aggregates the two closest networks, or clusters of networks, step by step, depending on the nature of the relationships with the respondent. A cluster solution is determined by stopping the aggregation procedure at one point. For the present analysis, a series of solutions was examined and the final six-category typology made based on empirical criteria (for purposes of clarity, parsimony and homogeneity). The interpretation of clusters was based on a comparison of the average number of citations for each type of relationship across clusters (see Appendix B). In the four categories "family of procreation" (18%), "friendship" (17%), "family of orientation" (10%) and "professional" (9%), respondents' networks were characterized by the overrepresentation of children, friends, parents and colleagues respectively. The two last categories were composed of networks marked by a combination of types of relationship. Respondents in the "family-friends" category (27% of the sample) distinguished themselves from the other types by mentioning both one/several family members outside of the nuclear family (siblings, cousins, aunt, etc.) and friends, but not children. In the "family-work" network type (22%), respondents predominantly cited family members, particularly children and siblings, and sometimes colleagues, but not friends (see Appendix B).

1.5 Results

1.5.1 The impact of residential mobility on network spatial dispersion

A first linear regression was run to estimate how people's social characteristics and network composition related to earlier residential mobility (Table 4). Individuals who lived far from their area of residence at age 14 were more likely women and people aged 51-65, compared to those aged 35-50, who constituted the reference category. Conversely, people living in periurban areas and small urban centers, as well as those living in other living arrangements (many of them with parents), lived closer to their area of residence at age 14 than people living in suburban contexts and with a partner and child respectively. Finally, people who belonged to networks of both family and friends lived closer to their area of residence at age 14 than people that cited mainly family members and sometimes colleagues.

To estimate how people's social characteristics, network composition and residential mobility impact the spatial dispersion of their networks, a set of linear regressions was run (Table 4). In models A, the impact of the network composition and respondents' socio-demographic characteristics were estimated. In models B, the impact of respondents' residential mobility was assessed. In models C, network composition, socio-demographic characteristics and residential mobility were considered simultaneously.

Table 4

Summary of linear regression analysis for network spatial dispersion on network composition and respondents' socio-demographic characteristics (A), residential mobility (B), and both (C) (standardized coefficients; n=473)

	Dist. from resid. at age 14 (log)	Avg. dist. Resp. - Contacts (log)			Avg. dist. betw. Contacts (log)		
		A	B	C	A	B	C
Residential mobility							
Dist. from resid. at age 14 (log)			.40**	.39**		.31**	.29**
Network composition							
Family-friends	-.10*	.02		.06	.07		.10
Family-work	-	-		-	-		-
Family of procreation	-.04	.03		.05	.05		.06
Friendship	-.01	.11*		.12*	.12*		.13*
Family of orientation	-.02	.02		.03	-.02		-.01
Professional	-.01	.00		.00	.00		.01
Sex							
Female	.14**	-.04		-.09*	-.03		-.07
Age							
18-34	-.03	.03		.05	.00		.01
35-50	-	-		-	-		-
51-65	.13*	1.16		.02	.06		.02
66-	.02	-.02		-.03	-.02		-.02
Living arrangement							
Alone	-.02	.19**		.19**	.11		.11
With partner without child	-.08	.06		.09	.08		.11
Without partner with child	-.06	-.02		.00	.00		.01
With partner and child	-	-		-	-		-
Others	-.19**	-.10		-.03	-.06		-.01
Education							
Basic education	-	-		-	-		-
Apprenticeship	-.01	.02		.02	.13		.13
Vocational school	.02	.05		.04	.08		.08
Advanced vocational school	.11	.11		.07	.21**		.18**
University	.04	.09		.08	.17**		.16**
Household income							
Low	-.01	-.02		-.02	.00		.00
Middle	-	-		-	-		-
High	.02	.01		.01	.03		.02
Residential context							
Periphery area	-.09	.10		.14**	.07		.10
Periurban area	-.11*	-.10*		-.06	-.10*		-.07
Suburban area	-	-		-	-		-
Small urban center	-.11*	.02		.06	-.02		.01
Medium-size urban center	.02	.05		.04	.05		.05
Large urban center	.01	.13**		.13**	.13**		.13**
Df	24	24	1	25	24	1	25
R^2	.12**	.12**	.16**	.25**	.11**	.10**	.18**
ΔR^2				.09**			.08**

*p < .05 **p < .01

Models A showed that people embedded in friendship networks were significantly more likely to live farther from their personal contacts, and that those contacts tended to live farther from one another than individuals who cited family members and sometimes colleagues, which constituted the reference category. The same was true for individuals living in large urban centers, compared to those living in suburban contexts. Furthermore, people who lived alone tended to live further from their personal contacts than individuals who lived with a partner and child(ren), whereas highly skilled individuals were more likely to mention widely dispersed personal contacts. Conversely, individuals living in periurban areas were more likely to have a localized network, compared to those living in suburban contexts. Models B confirmed that residential mobility is a factor in rebuilding social ties on a larger scale: the further an individual lived from his/her current residence at the age of 14, the further his/her contacts lived from one another and from him/her. Models C demonstrated that the previous effects remained unchanged when all variables were included. Only the effects of living in a periurban area lost their significance when residential mobility was introduced. This means that people living in periurban areas often lived closer to their personal contacts, and that those contacts lived closer to one another because people living in periurban areas were less mobile than people living in suburban contexts. Moreover, two additional effects proved significant when residential mobility was included in the model. Controlling for residential mobility, individuals living in periphery areas lived farther from their contacts than people living in suburban contexts. Finally, women on the whole lived as close to their personal contacts as men, but further away from their area of residence at age 14. In other words, for a given distance from their area of origin, women lived closer to their personal contacts than men.

1.5.2 The two, contrary effects of residential mobility on support network structure

To estimate how network spatial dispersion and earlier residential mobility affected the provision and structure of emotional support within personal networks, a set of regressions was run using the number and proportion of ties received and given by the respondent, betweenness centrality, density and transitivity as outcomes (Tables 5 and 6). Models A show the effect of earlier residential mobility. In models B, the spatial dispersion of the network was included. Control variables were added in models C, and the network composition was included in models D. As dependent variables were dichotomized, binary logistic analyses were appropriate. Alternative models were also tested, however, including ordinal logistic regressions (PLUM procedure of SPSS), with dependent variables recoded into three-fold scales and OLS regressions without recodification. Results were identical in both cases.

As expected, neither the spatial dispersion of networks nor the distance from the area of residence at age 14 significantly affected the number or proportion of support ties received or provided by respondents. Individuals with long-distance personal contacts shared as many support ties as people with localized networks. Only the proportion of support receivers was positively influenced by earlier residential mobility: the further people lived from their area of residence at

age 14, the more they supported the persons they mentioned in their network. The proportion of support providers of mobile people, however, did not differ from that observed for non-mobile people. The absence of a significant link between the spatial dispersion of networks and the provision of support could be due to the fact that the number of support ties could vary only between two and four. When the whole sample was used and distance between personal contacts excluded from the analysis (which allowed for retention of people citing only one personal contact), respondents who lived far from their personal contacts were more likely to cite a greater number of persons as support providers and receivers, with or without control variables. There was, however, no significant impact on the proportion of support ties after adding controls (results not reported).

Additionally, it appeared that people aged 66 or more had fewer personal support contacts (absolute and in proportion to the number of persons cited in the network). Conversely, higher-income people and those living in big cities received more support (absolute and in proportion) than middle-income people and those living in suburban contexts respectively. Also, the longer people had known their personal contacts, the higher the proportion of support providers was. Network composition likewise strongly influenced the provision of support. Compared to people that cited mainly family members and sometimes colleagues in their network (reference group), people embedded in a friendship network received more support (absolute and in proportion). Furthermore, people that cited children predominantly claimed giving and receiving more support, due to the fact that they cited more contacts within their network. Lastly, people that cited mainly parents received more support ties in absolute terms, but supported their contacts less proportionally speaking, due to the asymmetrical nature of the parent-child bond.

We likewise had hypothesized that less support was exchanged between the personal contacts of mobile people because they were more distant from one another, compared to the contacts of non-mobile people, thus leading to a fragmented structure. Empirical results show that this expectation should be rejected in favor of a more complex pattern of effects. A significant relationship between geographically dispersed contacts and network fragmentation was indeed observed: the more distant the personal contacts in a network were from one another, the more individuals played the role of intermediary between them, and the less dense and less transitive the support network was (Table 6). However, contrary to expectations, our findings showed that, although people living far from their area of residence at age 14 often had more contacts living far away from one another (Table 4), they were not more likely to be part of fragmented networks. As residentially mobile people were also characterized by a greater distance between them and their contacts, this exerted a contrary effect on the network structure. While controlling for the effects of spatial dispersion of personal contacts and residential mobility, the distance between respondents and their contacts fostered a transitive, weakly centralized support network.

Table 5

Summary of logistic regression analysis for number and proportion of support ties on residential mobility (A), and network spatial dispersion (B), and respondents' socio-demographic characteristics (C), and network composition (D) (Odds Ratios; n=473)

	# of support providers				# of support receivers				Proportion of support providers				Proportion of support receivers			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
Residential mobility																
Dist. from resid. at age 14 (log)	1.07	1.01	.96	.98	1.06	1.04	1.00	1.03	1.02	1.02	.98	1.00	1.17*	1.17*	1.16	1.21*
Network spatial dispersion																
Avg. dist. resp. - contacts (log)		1.16	1.18	1.14		.90	.83	.81		1.15	1.27	1.26		.97	.95	.99
Avg. dist. betw. contacts (log)		1.03	.99	.98		1.24	1.30	1.27		.85	.74	.73		1.03	1.06	1.00
Network acquaintance duration																
Avg. # of years of acquaintance			1.01	1.02			1.00	1.02			1.02	1.03*			1.01	1.02
Network composition																
Family-friends				1.78				1.61				1.77				1.71
Family-work				-				-				-				-
Family of procreation				6.15**				9.54**				1.23				1.12
Friendship				2.27*				4.39**				2.08*				1.50
Family of orientation				4.37**				.93				1.50				.36*
Professional				2.51**				2.06				1.38				.76
Sex																
Female			1.38	1.23			1.28	1.10			1.50*	1.43			1.49	1.47
Age																
18-34			.96	1.10			1.16	1.61			.88	.88			1.48	1.80
35-50			-	-			-	-			-	-			-	-
51-65			.92	.87			.86	.68			.91	.94			1.10	.89
66 -			.43	.28**			.61	.30**			.28**	.27**			.51	.38*

*p < .05 **p < .01

	# of support providers				# of support receivers				Proportion of support providers				Proportion of support receivers			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
Living arrangement																
Alone			.97	.86			.93	.77			1.13	1.03			.92	.81
With partner without child			.48*	.41**			.63	.50*			.91	.86			.85	.72
Without partner with child			1.15	.99			1.48	1.17			2.85	3.16			1.52	1.42
With partner and child			-	-			-	-			-	-			-	-
Others			.51	.49			.37*	.33**			1.25	1.16			.70	.59
Education																
Basic education			-	-			-	-			-	-			-	-
Apprenticeship			1.39	1.60			1.24	1.63			1.20	1.19			.62	.65
Vocational school			1.01	1.33			1.82	2.93*			.72	.75			.38	.36*
Advanced vocational school			1.45	1.68			1.90	2.61*			1.29	1.30			.92	.98
University			2.00	2.47			.36	2.22			2.13	1.99			.59	.57
Household income																
Low			1.12	1.11			.89	.88			1.25	1.22			.74	.69
Middle			-	-			-	-			-	-			-	-
High			2.27**	1.99**			.98	.82			2.04**	1.98**			1.28	1.37
Residential context																
Periphery area			1.22	1.33			1.28	1.48			.94	1.00			1.43	1.64
Periurban area			.57	.52			.70	.58			.76	.79			1.36	1.35
Suburban area			-	-			-	-			-	-			-	-
Small urban center			.87	.89			1.85	1.86			.40*	.42*			1.10	1.26
Medium-sized urban center			1.17	1.04			1.35	1.24			.87	.91			1.79	2.09
Large urban center			2.98**	3.25**			1.53	1.54			3.26**	3.50**			.98	1.04
Df	1	3	23	28	1	3	23	28	1	3	23	28	1	3	23	28
Chi^2	1.16	5.71	56.53**	90.53**	.96	5.02	36.27*	90.58**	.06	1.27	51.73**	57.26**	4.82*	4.85	27.75	42.50*
ΔChi^2		4.55	50.82**	34.00**		4.06	31.25*	54.31**		1.21	50.46**	5.53		.03	22.90	14.75*

*p < .05 **p < .01

Table 6

Summary of logistic regression analysis for betweenness centrality, network density, and network transitivity on residential mobility (A), and network spatial dispersion (B), and respondents' socio-demographic characteristics (C), and network composition (D) (Odds Ratios; n=473)

	Betweenness centrality				Density				Transitivity			
	A	B	C	D	A	B	C	D	A	B	C	D
Residential mobility												
Dist. from resid. at age 14 (log)	.96	.94	.87	.89	1.05	1.08	1.08	1.08	1.08	1.10	1.18*	1.15
Network spatial dispersion												
Avg. dist. resp. - contacts (log)		.59*	.58*	.58*		1.25	1.33	1.39		1.40	1.49	1.53*
Avg. dist. betw. contacts (log)		1.92**	2.14**	2.12**		.70*	.64**	.62**		.64**	.56**	.56**
Network acquaintance duration												
Avg. # of years of acquaintance			.96**	.97*			1.03*	1.03*			1.04**	1.03*
Network composition												
Family-friends				2.24**				1.31				.45**
Family-work				-				-				-
Family of procreation				.91				1.03				1.22
Friendship				2.19*				.71				.41**
Family of orientation				1.39				.81				.66
Professional				1.41				1.31				1.25
Sex												
Female			2.22**	2.15**			.99	1.01			.57**	.60*
Age												
18-34			1.22	1.22			.95	.96			.92	.97
35-50			-	-			-	-			-	-
51-65			1.22	1.28			1.06	1.02			1.06	1.02
66 -			1.02	1.00			.55	.52			.95	.95

*p < .05 **p < .01

	Betweenness centrality				Density				Transitivity			
	A	B	C	D	A	B	C	D	A	B	C	D
Living arrangement												
Alone			.94	.85			.77	.82			.70	.76
With partner without child			.92	.86			.95	.98			.75	.80
Without partner with child			.36	.41			2.78	2.98			2.19	1.97
With partner and child			-	-			-	-			-	-
Others			1.00	.87			.90	.89			.85	.96
Education												
Basic education			-	-			-	-			-	-
Apprenticeship			.68	.64			.82	.84			1.83	2.02*
Vocational school			.81	.76			.68	.67			.92	.99
Advanced vocational school			.90	.87			.87	.91			1.88	2.10
University			.65	.53			1.00	1.07			3.89**	5.21**
Household income												
Low			1.25	1.20			1.12	1.13			.83	.86
Middle			-	-			-	-			-	-
High			1.07	1.07			1.45	1.50			.87	.88
Residential context												
Periphery area			.23**	.58*			1.23	1.22			1.93**	1.75*
Periurban area			.44*	.33**			1.34	1.45			2.53**	2.42*
Suburban area			-	-			-	-			-	-
Small urban center			.79	.87			.72	.73			2.15*	1.86
Medium-sized urban center			.30**	.49*			1.46	1.50			2.64**	2.37**
Large urban center			.54*	.24**			2.44*	2.45*			3.04**	2.82**
Df	1	3	23	28	1	3	23	28	1	3	23	28
Chi^2	.34	18.54**	81.78**	93.80**	.51	8.92*	32.67	37.54	1.39	11.86**	69.38**	86.98**
ΔChi^2		18.20**	63.24**	12.02**		8.41*	23.75	4.87		10.47**	57.52**	17.60**

*p < .05 **p < .01

Moreover, irrespective of the network's spatial dispersion, earlier residential mobility favored a transitive structure. This effect nonetheless disappeared when network composition was included in the model. Friendship and "family-friends"-type networks were less transitive than "family-work"-type ones, which constituted the reference category. Residentially mobile people had thus more transitive networks than non-mobile ones because they were less likely embedded in networks of the "family-friends"-type (see also Table 4). All these effects likewise held true when network size was included in the regression models (results not reported).

Results of the regressions likewise showed that women and people living in suburban areas were more likely embedded in intransitive, strongly centralized support networks, while individuals with university degrees more often had transitive personal networks compared to those with a basic level of education. Finally, the longer people knew their personal contacts, the less they played the role of intermediary between them and the denser and more transitive their networks were.

1.6 Discussion

This study examined the impact of the spatial dispersion of networks and earlier residential mobility on the provision of emotional support within personal networks. The general hypothesis was that residential mobility fosters personal networks that are geographically spread out and that, in turn, favor a fragmented structure, i.e. sparsely connected, intransitive support networks in which mobile people play the role of compulsory intermediary between their personal contacts. Based on our data, this expectation was confirmed but accounted only in part for the mechanism. We found that earlier residential mobility did foster spatially dispersed personal networks, which in turn favored fragmented networks. But at the same time, the further respondents lived from their place of birth, the more distant they were from their personal contacts and the more transitive and less centralized their support networks were, counteracting for the impact of distance between contacts. Moreover, because residentially mobile people less frequently had networks composed of both friends and family members, their personal networks tended to be more transitive than the networks of sedentary individuals.

Consistent with previous studies on this topic (Magdol, 2000; Ohnmacht et al., 2008), our research confirmed that individuals with a history of residential mobility tended to have personal networks that were dispersed. The further respondents lived from their area of residence at age 14, the farther their personal contacts tended to live from one another and the further respondents tended to live from them—a finding which suggests that earlier residential mobility has an enduring influence on the rebuilding of social networks on a larger geographical scale. Presumably less embedded in neighborhood relationships, mobile individuals were more likely to cite important contacts living near a distant place of birth. This finding also suggests that mobility experiences are linked to individuals' skills and resources with regard to the use of high-speed transportation and telecommunications networks, allowing them to maintain long-distance ties and build intimate relationships in several places

(Boase et al., 2006; Hampton and Wellman, 2002; Kaufmann, 2002; Larsen et al. 2006). The spatial dispersion of an individual's personal network is the product of a complex phenomenon that combines not only job- and family-related mobility trajectories and attachment to persons or places over the course of an individual's life, but also the strategies and resources he/she uses to maintain strong ties over long-distances (Larsen et al., 2006; Urry, 2007a; Wellman, 2001). Moreover, individuals living alone also tended to have more dispersed networks than those living with partner and children. This finding is coherent with previous studies that show the shrinking and overlapping of friendship networks between partners over the life course (see e.g. Bidart and Lavenu, 2005; Kalmijn, 2003). People in friendship networks also had more geographically scattered personal networks compared to individuals who cited mainly family members and sometimes colleagues. While earlier research shows that friendship ties were less likely to survive great distances than relationships with family members (Bonvalet and Maison, 1999; Coenen-Huther et al., 1994; Grossetti, 2007), the high percentage of people embedded in friendship networks that did not mention a partner might explain this result. Moreover, our findings are consistent with the observations that highly educated people have a greater capacity for maintaining strong, long-distance relationships with family and friends (Bonvalet and Maison, 1999; Rémy and Voyé, 1992), since highly educated people tend to have more dispersed personal contacts than less-educated individuals. Controlling for the effect of residential mobility, the analyses likewise showed that women lived closer to their personal contacts than did men. Overall, however, we found that women lived the same distance from their personal contacts as men, since women also lived further away from their area of residence at age 14. This result supports the hypothesis that women are more locally rooted than men due to their responsibility for housework and childcare, once the effect of maintaining contact with kin near the birthplace is taken into account (Wellman, 1985; Wellman and Wellman, 1992). The context of respondents' current residential location also significantly influenced the geographical distance between network members. People living in big cities and remote areas belonged to networks that were geographically broader than individuals living on the outskirts of urban centers. In this latter context, large dwellings and being a homeowner, as well as the relatively strong community-building values of people living in suburban and periurban neighborhoods, might explain this finding (Teller, 2009).

Secondly, as highlighted in past research on larger networks (Grossetti, 2007; Larner, 1990; Magdol, 2000), this study upholds the expectation that, in the long term, residential mobility has only a minor impact on the number of strong personal ties. More specifically, the analyses performed in this study showed that the number of support ties was significantly affected neither by the geographical dispersion of personal networks, nor by distance from the place of birth. This outcome is consistent with longitudinal studies that emphasize the importance of turnover in personal relationships (rather than an increase or decrease in the actual number of ties) in the case of residential relocation (Butler et al., 1973; Larner, 1990; Lubbers et al., 2010; Magdol, 2000). Long-distance support relationships were reported as frequently as were local ones, probably because only the strongest, most intimate ties were maintained over distances,

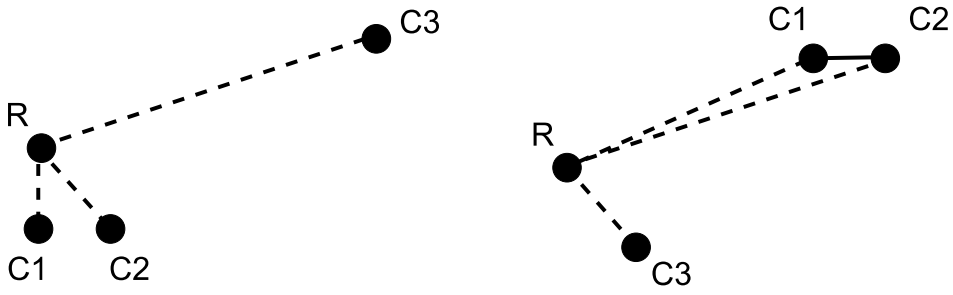
whereas weaker ties were eliminated (selection effect). It also suggests that emotionally supportive ties may be maintained via telecommunications and occasional visits (Boase et al., 2006; Larsen et al. 2006). Regardless of the spatial dispersion of the network, analyses nonetheless showed that long-distance relocation had a positive impact on the proportion of support ties given by the respondent; the further he/she lived from his/her residence at the age of 14, the greater the chance he/she supported the people he/she cited in the network. The proportion of support received by the mobile respondents, however, did not differ from that observed for non-mobile people. This finding can be interpreted as the consequence of recent arrivals' efforts at rebuilding a support network in the new residential location. Earlier studies have shown that recent residential relocation may lead individuals to focus on a small, emotionally intimate group and multiplex ties (good friends and certain family members), rather than maintaining ties with a large number of less-intimate individuals (Bidart and Lavenu, 2005; Collmer, 2002, 2005; Jones, 1973; Pelizäus-Hoffmeister, 2001; Shklovski, 2007). In the years following the move, the individual's support network might be concentrated among a small number of people that he/she is more likely to cite as support receivers than he/she would within a larger network of weaker ties (Granovetter, 1973). This hypothesis must still be confirmed through additional research.

Thirdly, as expected, individuals with personal contacts that were geographically distant from one another were more likely to become the center of a loosely connected, intransitive network, whose contacts supported one another less than contacts within localized networks. The effect of geographical distance could not be eliminated here, so that individuals were integrated in fragmented networks. Personal contacts supported each other less, probably because they did not know one another well and had fewer opportunities to get together. One can also wonder about the extent to which individuals attempt to connect their distant personal contacts with one another or do not, based on their strategies and resources. Due to geographically widespread social embedding, it appeared that individuals were not fully able – or willing – to exert this logic of transitivity, which lies at the heart of social network building (Davis, 1970; Simmel, 1999).

Finally, while residential mobility favored geographically dispersed personal contacts, people living far from their place of birth were not more likely to become part of a fragmented network than those living in the area they grew up in, as being far from one's personal contacts concurrently fostered a transitive and a weakly- centralized structure. Controlling for residential mobility and the distance between personal contacts, the further respondents lived from their contacts, the more transitive and less respondent-centered their networks were. As we saw earlier, the provision of support between respondents and their contacts did not significantly differ according to network spatial dispersion. Thus, these differences in transitivity and centrality most likely stem from a difference in the provision of support between contacts. In other words, for a given average distance between personal contacts, the more distant respondents were from them, the more likely the contacts were to support each other.

Figure 1

Illustration of the lower probability of support between two contacts living near the respondent (left), compared to two contacts living far from the respondent (right), for a given average distance between the contacts



The left- and right-hand diagrams in Fig. 1 illustrate two scenarios wherein the spatial dispersion of personal contacts (C1-C3) is identical. In the right-hand diagram, the average distance between the respondent (R) and the contacts is higher than in the left-hand diagram. Our findings suggest that personal contacts (C1 and C2) are more likely to exchange support when the respondent is distant from them (right-hand diagram) than when the respondent is close (left-hand diagram). This mechanism can be interpreted in two ways. Firstly, transitive ties are more likely to survive greater distances than intransitive ones (Wellman, 1990; Wellman and Wortley, 1990). Indeed, distant ties are more likely to be strong than local ones (see, for example, Fischer, 1982; Grossetti, 2007; Larsen et al., 2006). Because weaker ties are more likely to be part of intransitive triads (Granovetter, 1973), two contacts who do not support one other are more likely to be geographically close to the respondent, given the geographical distance between them. Secondly, having contacts that know and support one another facilitates travel and face-to-face meetings, which are necessary to sustain intimate bonds at a distance (Larsen et al., 2006; Urry, 2003). The friction of distance can be partially compensated for by seeing several contacts at the same time.

The fact that residential mobility did not foster fragmented networks can also be explained by a shift in the composition of personal networks. People living far from their area of residence at age 14 had more transitive networks than those living in the area they grew up in because they were less likely to be embedded in networks composed of both family members and friends. This result is consistent with previous findings showing that geographical moves, often coupled with work/married life, lead to an overall decrease in the presence of friends in the network (see e.g. Bidart and Lavenu, 2005). The decrease in the number of friends happens mainly in favor of family members, who develop more transitive ties.

This study addressed some of the dimensions associated with the spatiality of social integration in a mobile world. Several limitations should nonetheless be mentioned. To begin, the data contained only small networks of emotionally

close people. Respondents were therefore likely to cite discussion partners for "important matters" as support receivers/providers. This may have contributed to the insignificant findings as regards the association between the provision of support with the respondent and network spatial dispersion. Moreover, the small variability in respondents' network size resulted in the limited number of modalities of the network indices. Accordingly, the network indices could only be evaluated based on threshold values (low vs. high network density, etc.), instead of being measured in a continuous way. It would therefore be interesting to test the fragmentation hypothesis on larger personal networks potentially structured around multiple clusters of ties. In addition, the analyses performed in this study were at the network level. Therefore, it would be helpful to test whether the same mechanisms can be detected at the relationship level. One could, in particular, analyse whether or not long-distance personal contacts are more likely to support one other than geographically close personal contacts, given the geographical distance between them. Additional information about the strength of ties would make it possible to test whether long-distance ties are more transitive than local ones because they are stronger. Thirdly, because of the limitations of the data, it was not possible to include international migration in the analyses, nor some of the potentially important characteristics of mobility practices. Residential mobility was measured with only one item to capture for distance from the network of origin, but did not provide any details regarding different aspects of earlier residential mobility, such as timing, distance and frequency of moves or the length of residence in the current home. Finally, the data were cross-sectional. Future research on the effects of spatial mobility on network structure would benefit from longitudinal data that would help capture changes in the structure of ties in personal networks over the life course and mobility trajectory.

Nevertheless, this study offers new insights into the impact of spatial mobility and geographical distance on support networks, and provide interesting ideas for future research. The coexistence of a fragmented structure, associated with the spatial dispersion of personal contacts, and a transitive structure, linked with a distance-based selection process, revealed that physical distance with friends and family leads to new and complex modes of social integration that cannot be reduced to the pure individualization of social ties.

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1.9 Appendix A

Distribution of respondents in the full sample and analytical sample (%)

	Full sample (n=1078)	Analytical sample (n=473)
Sex		
Female	53.0	52.6
Age		
18-34	21.9	26.6
35-50	30.6	33.4
51-65	26.9	24.7
66-	20.6	15.2
Living arrangement		
Alone	30.5	25.4
With partner without child	29.2	31.7
Without partner with child	3.7	3.8
With partner and child	27.0	28.8
Others	9.6	10.4
Education		
Basic education	17.1	12.7
Apprenticeship	41.3	46.1
Vocational school	8.1	7.0
Advanced vocational school	23.9	26.4
University	9.6	7.8
Household income		
Low	28.7	23.0
Middle	48.2	49.3
High	23.1	27.7
Residential context		
Periphery area	22.4	29.0
Periurban area	16.4	11.4
Suburban area	29.8	29.2
Small urban center	11.0	9.1
Medium-size urban center	11.7	12.7
Large urban center	8.6	8.7
Residential mobility		
Distance from residence at age 14 (km) (mean)	31.95	34.28

*p < .05 **p < .01

Note: In the case of the full sample, distance from the residence at age 14 was calculated based on the subsample of 882 persons, as respondents who lived abroad at this age were declared missing.

1.10 Appendix B

Types of network composition (means)

Number of citations	Family-friends I	Family-work II	Family of procreation III	Friendship IV	Family of orientation V	Professional VI	Tot	Eta²
Size of cluster (%)	27	22	18	17	10	7	100	
N	128	103	84	80	47	31	473	
Partner	.55	.69	.69	.29	.70	.42	.57	.09**
# Parents	.19	.22	.07	.15	1.62	.48	.33	.55**
# Children	.03	.45	1.96	.00	.00	.00	.45	.79**
# Siblings	.39	.61	.05	.10	.21	.10	.29	.16**
# Other family ties	.30	.03	.21	.00	.00	.00	.13	.11**
# Friends	1.10	.04	.39	2.56	.47	.13	.86	.74**
# Colleagues	.17	.32	.04	.07	.09	1.94	.27	.56**
# Neighbors	.02	.08	.01	.01	.00	.00	.03	.03*
# Members same assoc.	.02	.06	.00	.00	.00	.00	.02	.02
# Prof. counselor (psy.)	.02	.04	.01	.01	.00	.03	.02	.01
# Other non-family ties	.00	.11	.00	.06	.02	.03	.04	.03**

*p < .05 **p < .01

Note: Other family members: cousins, uncle, aunt, godparents, parents-in-law.

Chapter 2

Social integration faced with commuting: more widespread and less dense support networks

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2.1 Introduction

Boltanski and Chiapello (1999) remind us that today, the ability to move is essential not only to peoples' careers, but also to their social integration in general. Mobility has become a central aspect of social integration, notably by contributing to transformation of the modalities of relational embeddedness and the space in which these are implemented. Indeed, the speed potentials afforded by transportation and communication systems allow people to build farther away social ties. In a context where spheres of activity within a single day have both greatly increased in number and grown in distance, mobility potentials may be used as a resource to ward off those spatial and temporal incompatibilities that actors must contend with. In highly advanced societies that have seen an increase in the ways that people can travel through time and space (Urry 2000; Kaufmann 2002), mobility is a value that carries its own differentiations. Its effective use allows a person to acquire social status, whereas neglecting mobility may lead to loss of status. Therefore, this growing importance of spatial mobility contributes to the creation of new forms of inequality. Not having a car (Dupuy 1999), living in a residential area with poor access to public transportation (Cass et al. 2005; Jemelin et al. 2007), and weak temporal or organisational resources to handle projects that require travel (Kaufmann et al. 2005; Le Breton 2005) may jeopardise the social and professional integration of disadvantaged portions of a population.

Contrary to the urban sociology of the 1930s, which saw in the explosion of big cities a risk of anonymisation and social disaffiliation in metropolitan contexts, sociology has since emphasized the plurality of social integration forms (Wellman 1988), opposing the thesis of disaffiliation. In this same idea, some authors (Offner and Pumain 1996; Kesselring 2006a, 2006b; Frei et al., Chapter 5, this volume; Ohnmacht et al. 2008) have suggested that social links are built less in the proximity and the public space, and more in relatedness and distance relationships. The development of commuting in the 1970s, which relaxed the spatial dependence between the workplace and the residence, pertains to this transformation of social anchorings through spatial mobility. The increase of travel time budget and geographical distances is a challenge to the constitution of social ties, whose certain forms are mainly forged in habit and daily time. This chapter addresses these issues on the basis of new Swiss data by examining the spatiality of social integration in a commuting context. From the concept of

social capital, it asserts that, if commuting weakens local relationships, it reconstructs more decentralized integration forms, presenting other relational constraints and opportunities. Social inequalities resulting from this new geography of social integration are also discussed based on the concept of *motility*.

2.2 The Transformations of the Spatiality of Social Integration

The metropolisation process operating in Switzerland for about 15 years is generic and singular. It is generic because, like most European countries, the largest Swiss agglomerations – Zurich, Geneva, and Basle – concentrate the bulk of job creation, leading to an increase in commuting to these destinations. For example, commuter traffic between the major Swiss cities (Zurich, Basle, Geneva, Bern, and Lausanne) has doubled or tripled every decade (Frick 2004). The metropolisation process is also singular because the metropolisation of large urban centres manifests itself by new dynamics, directly affecting those centres' hinterlands. Indeed, bi-residentiality and long distance commuting between urban centres and rural areas are quickly developing in Switzerland, benefitting peripheral regions while increasing travel in terms of flow and budgeting time.

Important transformations of the relations with space and, more particularly, of the spatiality of social integration are behind these trends. More than half of the working Swiss population does not work in their municipality of residence. Therefore, the residence neighbourhood is not necessarily the theatre of daily life any more. The change occurred very quickly: About 50 years ago, the Swiss population was mostly non-motorised, so activities and social relations were centred on home neighbourhoods. With the development of commuting and the emergence of long distance commuting and bi-residentiality, social integration is no longer limited to the proximity of a residence.

One result of this is that the classical distinction of daily mobility, related to travel centred on the daily living environment and residential mobility, related to a social uprooting has partly lost its relevance. It is more common to have a daily life that takes place in areas that are dozens of kilometres apart from each other, with habits and routines in each of those areas. A second result is the development of *poly-places*, anchoring forms that are built around attachments to places and/or around social relationships. Confronted with mobility demands, more individuals are forced to develop and maintain social anchorings in different places, sometimes far apart from each other. In this configuration of multiplication and spatial expansion of relational anchorings, individuals should access to various means of transportation (e.g., cars, trains, planes) and various forms of mobility (e.g., physical, virtual, phone) to become socially integrated. According to the chosen strategies and resources that they command, individuals may strive to connect these different relational anchorings with each other or to maintain them unconnected (Kennedy 2004;, Kesselring 2005), possibly leading to the production of *spatial multi-belonging forms*.

2.3 Social Capital and Commuting

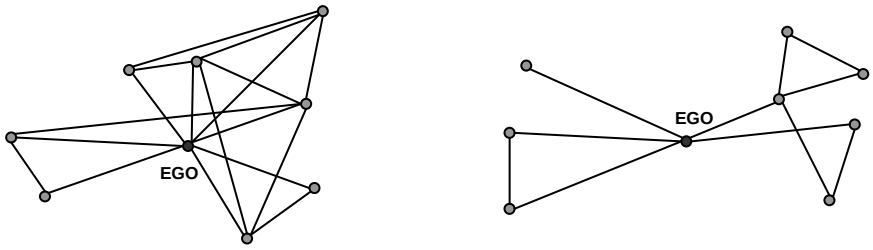
A frequent topic of urban sociology research since the findings of Chamboredon and Lemaire (1970), the link between commuting and social relationships is a central dimension of sociology related to social integration forms specific to modernity. Do social relationships change because of commuting? Though this question is well-known, it has not been the subject of systematic investigations in Switzerland. Contrary to the pessimistic hypotheses of the classics, which denounces the decisive weakening of social integration in metropolises, we suggest the hypothesis that commuting affects more the structure than the amount of interpersonal links a person has. In this perspective, we consider the concept of social capital.

The notion of *social capital* was used in sociology by Bourdieu (1980), as well as Coleman (1988) and Granovetter (1982, 2000). Social capital is classically defined as "the set of current or potential resources stemming from the possession of a lasting network of more or less institutionalized relations" [transl.] (Bourdieu 1980, 2). It is a set of relations specific to each individual, which can be considered as resources through the capability given to this individual to mobilize the people with whom he or she is connected.

The literature on the composition of social capital distinguishes two types of ties, strong ties and weak ties. Granovetter (1982) differentiates strong ties (i.e., durable, multiplex ties involving frequent interactions with a strong emotional implication) from weak ties (i.e., the acquaintances from diverse activity fields, like work or leisure). These two types of ties result in three types of social capital: capital based on strong ties (*binding social capital*), capital based on weak ties (*bridging social capital*), and capital that combines both types of ties (*binding-bridging social capital*) (Widmer 2006). Binding social capital corresponds to the *closed networks* of Coleman (1988), which are densely connected networks with a low centralization. Most of the individuals, if not all, in closed networks are interlinked by significant ties. Relational constellations tend to be transitive. If an individual called Ego is linked to an Alter X and an Alter Y, it is likely that X is also linked to Y. Conversely, bridging social capital is associated to sparsely connected networks, characterized by a high centralization and weak transitivity, leading some actors to benefit from a position of *compulsory intermediaries* between different network members (Burt, 1992, 2002) (see Figure 1). If the combination of strong and weak ties corresponds to a level of social capital, it is not possible to rank in terms of quantity of social capital the binding and bridging types (Portes 1998; Wilson 1987; Granovetter 1982).

The two types of capital have particular advantages and disadvantages. On the one hand, binding social capital integrates the individual in a dense network of solidarity. On the other hand, it binds the person by strong social control. Bridging social capital provides the individual with more autonomy, but it puts the person in a position of relative weakness according to solidarity practices, which can only be expressed in an individual way because the network members are not linked to each other.

Figure 1
Illustration of binding and bridging social capital



Binding social capital *Bridging social capital*

From this point of view, we can make the hypothesis that commuters are more likely to develop bridging social capital than non-commuters. The distance between a place of residence and a workplace gives relational anchorings a particular configuration. Presumably less bound in neighbourhood relationships (Putnam 2000), commuters develop their interpersonal relationships in a broader spatial range, which does not necessarily weaken their networks, but does make them more spatially diverse and less connected. Relational anchoring in several places prevents commuters from putting in touch their significant others. For example, it is more difficult for commuters to benefit from network support if other network members would not or little support them each other. Commuting leads to a spread out and disconnected space relationship, although not necessarily a poorer relationship. The spatial multi-belonging corresponds to bridging social capital in its relational dimension and redefines the relationship of persons to space.

2.4 Study Data and Indicators

The 2005 MOSAiCH[4] survey included the Swiss portion of the yearly survey of the International Social Survey Program (ISSP). Data are composed of a representative sample of the population living in Switzerland 18 years old and older. Face-to-face interviews were conducted with 1,078 people on the basis of a standardised questionnaire. Respondents were asked about their social networks based on the following question: *From time to time, most people discuss important matters with other people. Looking back over the last 6 months, who are the people with whom you discussed matters important to you (work, family, politics, etc.)?* Respondents could mention a maximum of 4 persons (*significant others*). At the spatial level, each respondent was asked to identify for each network member (including themselves) the current municipality (*commune*) of residence, the municipality of residence at age 14, and the

[4] Sociological Measures and Observation of Attitudes in Switzerland. This study was funded by the Swiss National Science Foundation and was conducted by the Swiss Information and Data Archive Service for the Social Sciences (SIDOS).

municipality of their current workplace. On the basis of that information and with the help of routing software designing the Swiss road network, road distances were computed. The geographical centres of the municipalities were used as coordinates. Three types of distance were extrapolated:

- The distance between the residences of any two network members.
- The distance between the current residence and the residence at the age of 14 (indicator of earlier residential mobility) of any network member.
- The commuting distance of each active network member (indicator of spatial job-related mobility).[5]

From the first type of distance, we constructed two indicators of spatial expansion:

- The mean distance between the respondent's residence and the one of each person mentioned by the respondent (distance Ego-Alters)
- The mean distance between the Alters' residences (distance Alter-Alter).

These indicators enabled us to analyse the network spatial expansion according to two components. The first component was related to the relationship between the respondent (Ego) and each of the significant others (Alters). The second component was only related to the significant others. This last indicator had the advantage of eliminating any definitional dependencies in the analysis of relationships between respondent characteristics and network expansion measures.

The respondents were also asked to identify the person who gives emotional, moral support to others in the network.[6] Based on that information, the number of emotional support ties, mutual and not mutual, between the respondent and the significant others on the one hand, and between the significant others on the other hand, were computed. In order to construct support indicators that were independent of the network size, we also defined the activation of the support ties by the number of existing support ties divided by the number of potential support ties based on the number of persons mentioned by the respondent.[7] Table 1 presents the summary of the used variables for the data.

[5] Only the Swiss municipalities were nominally stored in the database. When the person had lived, worked, or lived at the age of 14 outside the Swiss territory, the respective distance was then defined as missing values.

[6] The questions were: *Among these persons, who would give you some emotional, moral support at the time of everyday difficulties (for example, when you are a little bit depressed or following a hard day)? And which person or persons, you included, would give some emotional support to [first person mentioned]? Etc.*

[7] This boils down to a calculation of density.

Table 1

Summary of the used scale variables

	Mean	S.D.	Min. value	Max. value	N
Distance Ego-Alters (in km)	19.653	35.361	1.45 [a]	299.49	825
Distance Alter-Alter (in km)	27.431	37.524	0.92 [a]	193.09	531 [b]
Commuting distance of Ego (if active) (in km)	12.910	23.470	1.60 [a]	241	675
Mean commuting distance of the Alters (in km)	13.065	17.569	1.09 [a]	217.66	711
Dist. betw. current resid. and one at age 14 of Ego (km)	34.283	53.303	1.02 [a]	354	882
Activation of the mutual support ties Ego-Alters (‰)	718.90	372.24	0	1000	919
Activation of the support ties given by Ego (‰)	842.04	311.78	0	1000	919
Activation of the support ties received by Ego (‰)	780.83	331.33	0	1000	919
Activation of the support ties between Alters (‰)	385.08	357.53	0	1000	620 [b]

[a] The minimum values of distance are not strictly equal to 0 because a value of 2 km was attributed in the situations where the departure and arrival municipality were identical, in order to take into account travel inside the municipality. Some rare inter-municipality distances are lower than 2 km.
[b] The low number of cases is explained by the fact that about 40% of the respondents mentioned less than 2 network members.

2.5 Commuting and Network Spatial Expansion

In order to study the effects of the respondents' commuting on their network spatial expansion, a linear regression analysis was carried out for each of the two indicators. The results of the analysis (Table 3) show that the effect is significant (level: 0.01). The more the respondent commutes, the farther away the persons mentioned in the network live from each other and the farther away the respondent lives from them. According to our regression model, for each increase of 10 km in the respondent's commuting distance, the significant others distance themselves from each other by an average of 2.35 km and the respondent distances him- or herself from them an average of 2.24 km.

In order to control the effect of different respondent's characteristics (see Table 2) on this outcome and to refine the analysis, a multiple regression analysis was conducted.

This analysis shows that the respondent's earlier residential mobility has the strongest influence on the physical distance between the respondent and his or her significant others (Table 3, left column). The next important factor is living alone. This last result stems largely from the fact that the respondents who lived alone did not mention any network members living with them, which caused an increase in the mean distance between them and their significant network members. Also important is the effect of commuting distance. Other variables, such as sex, education, or the context of the respondent's residence do not influence considerably the physical distance between the respondent and the significant network members.

Table 2

Frequency (in %) of the respondents' socio-demographic variables

	Frequency		Frequency		Frequency
Sex		Age		Education	
Female	53	18-34 y.o.	22	Basic education	17
Male	47	35-50 y.o.	30	Apprenticeship	41
		51-65 y.o.	27	General education school	8
		66 y.o. and +	21	High (professional) school	24
				University	10
	100		100		100
(N)	(1077)	(N)	(1078)	(N)	(1068)

	Frequency		Frequency
Family structure [a]		Context of the residence	
Person living alone	30	Peripheral commune	22
Couple living without children	27	Periurban commune	16
Couple living with children	29	Suburban commune	30
Person w/o cohabiting partner liv. with child	4	Small centre	11
Other family structures	10	Middle centre	12
		Big centre	9
	100		100
(N)	(1078)	(N)	(1078)

[a] The family structure has been defined on the basis of the cohabitation with the respondent. A couple is then defined by a partner cohabiting with the respondent.

Concerning the physical distance between the significant others (Table 3, right column), it is again the respondent's earlier residential mobility that has the highest impact. Commuting has a slightly more important effect than in the case of the physical distance between a respondent and the significant others. Living alone, having a university degree, and having a residence in an urban centre are also significantly associated, though more moderately, with a higher physical distance between significant network members. On the other hand, the gender of the respondent did not substantially affect the physical distance between the significant others.

Table 3

Regression analysis of network expansion on different variables related to the respondent (Unstandardised regression coefficients) [a]

	Mean distance Ego-Alters		Mean distance Alter-Alter	
Commuting distance	0.224*** (0.154)	0.238*** (0.165)	0.235*** (0.158)	0.273*** (0.192)
Dist. betw. current resid. and the resid. at age 14		0.233*** (0.328)		0.200*** (0.273)
Sex (female)		-1.531 (-0.021)		-1.864 (-0.024)
Age				
18-34 years old		0.631 (0.008)		0.177 (0.002)
35-50 years old		-		-
51-65 years old		6.538* (0.084)		9.324* (0.107)
66 years old and more		0.878 (0.003)		18.850 (0.071)
Education				
Basic education		-		-
Apprenticeship		-7.148 (-0.100)		8.997 (0.117)
General education school		-6.666 (-0.049)		12.055 (0.077)
High (professional) school		-5.692 (-0.072)		11.650 (0.140)
University		-7.385 (-0.062)		20.228** (0.160)
Family structure				
Couple living with children		-		-
Person living alone		20.476*** (0.247)		9.381* (0.105)
Couple living w/o children		-3.040 (-0.037)		0.382 (0.004)
Person w/o cohabiting partner living with child(ren)		2.609 (0.015)		0.680 (0.004)
Other family structures		1.323 (0.012)		-1.038 (-0.009)
Context of the residence				
Peripheral municipality		-0.244 (-0.003)		7.752 (0.094)
Periurban municipality		-		-
Suburban municipality		-0.798 (-0.010)		7.473 (0.088)
Small centre		6.975 (0.056)		14.920* (0.114)
Middle centre		-2.469 (-0.022)		17.285** (0.150)
Big centre		-2.351 (-0.018)		19.317** (0.134)
Constant	16.647***	9.900	25.321***	-5.711
R	0.154***	0.477***	0.158***	0.439***
R^2	0.024***	0.227***	0.025***	0.193***
ΔR^2		sig. < .01		sig < .01

*p < .1 **p < .05 ***p < .01

[a] Standardised regression coefficients are in brackets

2.6 Commuting and Emotional Support

Because the effects of commuting on the number of the emotional support ties were not found to be significant,[8] we focus on the link between commuting and activation of the support ties.

Table 4 (left column) shows that the activation of the mutual emotional support ties between the respondent and his or her network members is statistically associated with the respondent's commuting. The more the respondent commutes, the lower the proportion of the significant others sharing support with him or her is. The regression model shows that for each increase of 10 km in the respondent's commuting distance, the activation of the mutual support ties between the respondent and the significant network members decreases by 1.4%.

Is this decrease in the proportion of activated significant others a direct consequence of the respondent's commuting or is it due to the fact that, when the respondent commutes, the network members are farther away from the respondent (indirect effect)? By adding different control variables to the regression model, including the mean distance between the respondent and the significant others, we observed that this distance does not influence the exchange of emotional support. It is not the fact that the respondent is far apart from his or her significant network members that causes a decrease in their activation, it is the fact that the respondent is a commuter. In other words, commuters are less likely to share emotional support with their significant others and this relation is not mediatised through an effect of distance between the commuter and his or her network members. We also observed that young adults, women, and people with a high school degree support each other proportionally more with their significant others. Conversely, people living alone, in big urban centres, and, to a lower extent, those living in small centres declare that they support each other proportionally less with their significant network members. This last outcome shows that the morphology of the residence context has an impact on mutual support.

The study of the received and given support (Table 4, right columns) enabled us to refine the analysis. Concerning the activation of the given support relations, women and young adults give support to a larger proportion of their network members. Conversely, people living alone, in other family structures (living with parents, flatmates, etc.), and in big centres support their significant others proportionally less. Neither commuting distance nor education influences the support given by respondents. On the other hand, people with high levels of education reported receiving emotional support from a higher proportion of significant others than respondents with low levels of education. Conversely, elderly people, commuters, and people living in small centres receive support from a smaller proportion of their significant network members.

[8] This result can be explained by a curvilinear effect observed in the relation between the network size and the respondent's commuting, which is not visible in a linear regression analysis.

Table 4

Regression analysis of the activation of the emotional support ties (in ‰) Ego-Alters on different variables related to the respondent (Unstandardised regression coefficients) [a]

	Activation of mutual support ties Ego- Alters		Activation of support ties given by Ego		Activation of support ties received by Ego	
Commuting distance	-1.335** (-0.085)	-1.434** (-0.091)	-0.634 (-0.048)	-0.868 (-0.065)	-1.264** (-0.090)	-1.403** (-0.100)
Distance Ego-Alters		-0.019 (-0.002)		-0.054 (-0.006)		0.186 (0.019)
Sex (female)		64.686** (0.088)		70.017** (0.112)		43.153 (0.065)
Age						
18-34 years old		85.841** (0.105)		75.641** (0.109)		54.022 (0.074)
35-50 years old		-		-		-
51-65 years old		41.916 (0.051)		-6.888 (-0.010)		44.256 (0.060)
66 years old and +		-103.837 (-0.040)		22.650 (0.010)		-194.480* (-0.084)
Education						
Basic education		-		-		-
Apprenticeship		77.495 (0.104)		52.298 (0.083)		59.575 (0.089)
General education school		-67.776 (-0.046)		-33.168 (-0.027)		-61.065 (-0.046)
High (professional) school		129.059** (0.157)		63.755 (0.092)		91.882* (0.125)
University		105.590 (0.090)		12.346 (0.012)		122.547** (0.116)
Family structure						
Couple living with children		-		-		-
Person living alone		-87.563** (-0.101)		-88.426** (-0.120)		-47.337 (-0.061)
Couple living w/o children		-43.502 (-0.050)		-3.954 (-0.005)		-24.846 (-0.061)
Person w/o cohabiting partner liv. with child.		0.702 (0.000)		8.844 (0.006)		-18.306 (-0.012)
Other family structures		-91.582 (-0.079)		-131.834*** (-0.134)		-8.556 (-0.008)

*p < .1 **p < .05 ***p < .01

[a] Standardised regression coefficients are in brackets

	Activation of mutual support ties Ego- Alters		Activation of support ties given by Ego		Activation of support ties received by Ego	
Context of the residence						
Peripheral municipality		-36.901 (-0.044)		57.144 (0.080)		-16.062 (-0.021)
Periurban municipality		-		-		-
Suburban municipality		-16.651 (-0.020)		33.164 (0.048)		14.673 (0.020)
Small centre		-119.892* (-0.096)		-16.067 (-0.015)		-147.247*** (-0.131)
Middle centre		16.153 (0.014)		49.436 (0.050)		12.402 (0.012)
Big centre		-135.852**(-0.105)		-107.285* (-0.098)		-85.568 (-0.073)
Constant	744.6***	681.985***	853.8***	783.107***	802.9***	735.396***
R	0.085**	0.258***	0.048	0.280***	0.090**	0.257**
R^2	0.007**	0.067***	0.002	0.079***	0.008**	0.066**
ΔR^2		sig < .05		sig. < .01		sig. < .05

*p < .1 **p < .05 ***p < .01

[a] Standardised regression coefficients are in brackets

These results indicate that the respondent's commuting distance do not considerably influence the proportion of significant others to whom he or she gives emotional support. Commuting distance negatively influences the proportion of significant others who give him or her support. This deficit can be interpreted as an effect of the commuter's mobile living arrangement, since increasing time spent travelling may foster a weaker involvement in the activities with significant others (relatives, close friends).

The analysis of the activation of support ties between significant others (Table 5) shows that neither the respondent's commuting distance nor the significant others' mean commuting distance exert a significant influence. On the other hand, the physical distance between the significant others' residences negatively influences the activation of the support ties. This result stems logically from the fact that significant others who were far apart from each other had a greater chance to know each other less or not at all and, therefore, support each other proportionally less. This analysis also indicates that the networks of male respondents, between 51 and 65 years old, present a stronger proportion of significant others supporting each other. The respondents' education level and the context of residence, however, do not have any effect on the emotional support exchanged between significant others.

2.7 Commuting and Social Integration: More widespread Relations and Less Activated Support Ties

Based on our results, our initial hypothesis is confirmed: commuters are more likely to develop a social network that is less anchored in contiguity, more spatially expanded, and more discontinuous than non-commuters. The longer a respondent's commuting distance is, the larger the distance between the respondent's place of residence and those of his or her significant others is. Further, the longer the commuting distance, the higher the mean distance between the residences of the significant others (see Figure 2). Therefore, commuting is a factor of transformation of social integration, of its local embedding, and of its recomposition on a larger scale. The commuter becomes the centre of a spatially widened network whose members are more distant from each other than traditional social networks. Thus, commuting practices must not be strictly understood as a way to maintain a locally embedded and densely connected social network, but also as a mobile living arrangement fostering a spatially expanded social anchoring.

Table 5

Regression analyses of the activation of the emotional support ties (in ‰) Alter-Alter on different variables related to the respondent (Unstandardised regression coefficients) [a]

	Activation of support ties Alter-Alter	
Commuting distance	-1.110 (-0.082)	-0.662 (-0.049)
Mean commuting distance of the Alters		0.585 (0.029)
Distance Alter-Alter		-1.089** (-0.117)
Sex (female)		-97.600** (-0.137)
Age		
18-34 years old		-7.294 (-0.010)
35-50 years old		-
51-65 years old		110.008** (0.133)
66 years old and more		-50.472 (-0.020)
Education		
Basic education		-
Apprenticeship		5.410 (0.008)
General education school		-17.713 (-0.012)
High (professional) school		21.611 (0.028)
University		58.243 (0.050)
Family structure		
Couple living with children		-
Person living alone		22.658 (0.027)
Couple living w/o children		-49.716 (-0.060)
Person w/o cohabiting partner liv. with child		27.906 (0.017)
Other family structures		-54.949 (-0.049)
Context of the residence		
Peripheral municipality		-49.254 (-0.063)
Periurban municipality		-
Suburban municipality		-75.328 (-0.096)
Small centre		-9.481 (-0.008)
Middle centre		-28.092 (-0.025)
Big centre		83.173 (0.064)
Constant	401.681***	475.135***
R	0.082	0.269
R^2	0.007	0.072
ΔR^2		n.s.

*p < .1 **p < .05 ***p < .01

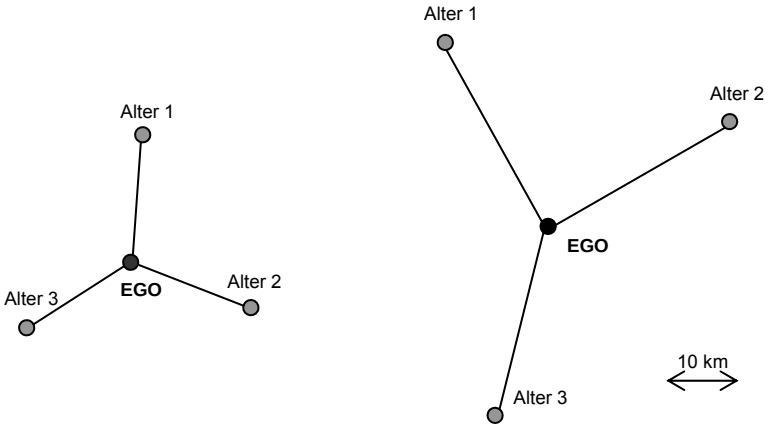
[a] Standardised regression coefficients are in brackets.

These spatial recompositions of social integration have a series of relational consequences. Previous research has shown that the frequency of interactions is very sensitive to geographical distance, which hinders contacts and exchanges (see for instance: Coenen-Huther et al. 1994; Bonvalet and andMaison 1999; Axhausen and andFrei 2007). Therefore, some important ties

tend to become virtual, or at least, to become more potential than active.[9] It is what we observed if we consider the activation of the mutual emotional support ties between an individual and his or her significant others that weakened when the individual's commuting distance increased. Thus, spatial distance has relational repercussions because it integrates commuters in interpersonal relationship networks in which the proportion of non-activated significant persons is higher. In particular, this is the proportion of network members supporting the commuter that decreases when the distance from home to work increases, whereas the proportion of network members receiving some support from the commuter remains stable. In accordance with our hypothesis, we did not measure any significant differences in the number of support ties according to commuting. The commuter, in particular the long distance commuter, tends to quote more significant network members, even if they are proportionally less activated in their support with him or her. Commuting is indeed associated with a structural recomposition and not a weakening of interpersonal relationships. Relational anchorings associated with commuting are as important, if not more important, than others, but potentially less supportive.

Figure 2

Illustration (to scale) of the network spatial expansion according to a weak (2 km) or strong (50 km) commuting distance of the respondent



Ego is weakly commuting *Ego is strongly commuting*

Note: Distances were drawn to scale, based on the predictions of the simple regression model.

It is, therefore, vital to investigate the extent to which emotional relations develop differently within a more spatially expanded and more discontinuous network. Some forms of emotional support, those forged in habit and daily time, can be

[9] Because the frequency of interactions between network members was not collected in the MOSAiCH survey, this proposition remains on the order of a hypothesis.

more difficult to share with commuters, given that they are relationally anchored in different places. Time spent travelling may also be a hindrance to more involvement in social life. These elements could partially explain why commuters claim to receive less support than they provide. On the other hand, commuting may foster the constitution of close relations, with colleagues for instance, who are disconnected from the rest of the solidarity network because of physical distance between home and workplace. Other forms of support within the primary network (e.g., confidence relationships, professional relationships) could then develop. At last, we can also assume that commuters may try to develop, through the physical distance from their social relations, different solidarity dynamics, based for instance on a lower level of responsibility towards them (e.g., children, relatives).

By the mediating effect of the physical distance, commuting is moreover associated with a higher proportion of significant others not supporting each other. The significant others support each other less, probably because they do not know each other well and have fewer opportunities to be together. Owing to a more widespread social anchoring, the commuter cannot fully exert this logic of transitivity, which is at the core of the social networks construction (Widmer 1999). This results in a situation of bridging social capital, in which the commuter becomes the compulsory intermediary between the members of his or her network (Burt 1992, 2002). If the respondents themselves present less activated support ties with their significant others in situations of commuting, this suggests the presence of weaker ties, confirming again the constitution of a bridging social capital. This has important potential consequences. Taking advantage of greater autonomy because their significant others are sparsely connected to each other, commuters can benefit from intersecting social circles (Simmel 1999). Through this relatively new social integration that is particular to modernity, they can develop an original identity, a sort of synthesis of various influences, which are physically distant and relatively disconnected from them. Because of a position of intermediary between disconnected individuals, commuters take advantage of various and non-redundant materials and resources and can play the role of mediator, controlling exchanges between their significant others (Burt 1992). Additionally, they are not constrained by closed networks (Coleman 1988) characterized by a strong normative pressure (i.e., everybody knows everybody in the network and all members react collectively to rumoured or real deviances). However, on the other hand, commuters do not benefit from the collective activation of a set of interconnected persons, where trust and mutual aid are reinforced by the collective constraint.

The results discussed above highlight the net effect of commuting from the effects of other variables, such as education, sex, age, family structure, residential mobility, and residence context. In other words, if commuting exerts a negative effect on the activation of the support ties, it is not because commuters are mainly men, well-educated, or inhabitants of urban centres. Other variables create their own important effects. First, the distance between the residence at the age of 14 and the current residence produce very similar effects to commuting on the network spatiality. If this implicitly suggests that social ties are progressively built since early childhood, it also shows that migrations, inside or

outside[10] the country, have opened the traditional modes of social integration and recomposed them in a broader space. This influence of the residential trajectories was notably brought to light by the studies on the spatiality of family configurations (Bonvalet et Maison 1999; Bonvalet et Lelièvre 2005). Because the two mobility dimensions, residential and professional, are going to increase and reinforce each other, we see what their joint effect on interpersonal relationships could be. The two mobility dimensions could result in networks that, without being smaller, will be less and less dense and more widespread, showing a bridging logic.

Among other important results, residence context is significant. Our analyses show in this respect that commuting influences social relationships differently according to the context of a respondent's residence. For equivalent commuting, the inhabitants of urban centres have social networks, which are, at the same time, more widespread and characterized by a lower activation of mutual support ties with their significant others than people living in suburban, periurban, or peripheral municipalities. The urban morphology, i.e., the visible dimension of the city continues to be a social marker. Contrary to a now dominant discourse on the urban question, the city has not been totally dissolved in even broader conurbations with even blurrier borders. This result particularly shows that the relational anchorings of city centre inhabitants differ from those of people living in the city outskirts. This observation is not reduced to the different composition of the population, in terms of education or family structure. This social integration, characterized by less dense and more widespread social networks, can also be explained by the stronger presence of foreigners in urban centre contexts.[11]

Added to this, the educational level and the residence context present a very interesting effect on network spatiality. These factors only influence the distance between the significant others, whereas the distance between the respondent and the network members hardly varies. Highly educated people living in urban centres benefit from a network where they are more centrally located according to the spatial position of their significant others. Conversely, less educated people living outside the urban centres are less centred. Additionally, this result supports the thesis that less educated people living in the outskirts are more likely to find themselves farther from their significant network members than they are from each other (see Figure 3).

The more reticular living spaces that were highlighted in this chapter imply that the potential to be mobile, i.e., motility, becomes an essential element from which social networks are built and maintained. In a general way, motility may be defined as the manner in which an individual appropriates the field of possibilities relative to movement, and uses them (Kaufmann, 2002; Kaufmann

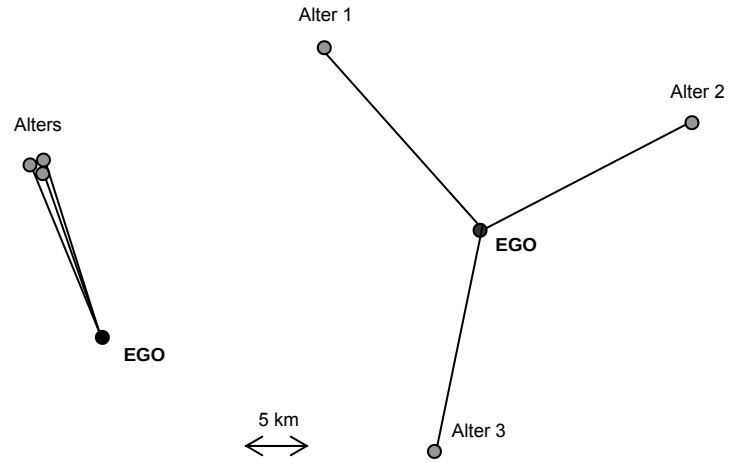
[10] External migration was not measured in this study.

[11] The proportion of respondents who lived abroad at the age of 14 and live currently in a urban centre reaches 23% against 16% for those living currently in a suburban, periurban or peripheral municipalities. Given that their municipality of residence at the age of 14 is outside the Swiss territory, the distance of earlier residential mobility cannot have been measured and was then defined as missing values. These individuals have thus not been identified as having a strong residential mobility.

et al., 2004). In our study, it may be more precisely understood as a potential or real capability to maintain significant support ties in spite of physical distance; to keep in touch by means of possibilities offered by the transportation and communication systems; and the ability to build new significant relationships in various places. A strong mobility capital allows individuals to maintain or widen their social capital. The existing literature on the domain shows that these capabilities are not egalitarian over the social structure. For the most disadvantaged population categories,[12] several factors may intensify their difficulties to maintain significant social relations in daily life. Having no car (Dupuy 1999; SEU 2002 report cited in Urry 2007, p. 13; Gray et al. 2006); living in a residence apart from transportation facilities and meeting places (shops, bars) (Church et al. 2000; Cass et al. 2005; Kenyon 2006); or weak resources, in organizational or temporal terms, to travel in order to see friends and relatives (Kaufmann et al. 2005; Le Breton 2005; Urry 2007) may explain such difficulties.

Figure 3

Illustration (to scale) of the network spatial expansion according to the education level and the residential context of the respondent



Ego's residence in a periurban municipality and basic education

Ego's residence in a small urban centre and high (professional) school degree

Note: Distances were drawn to scale, based on the predictions of the multiple regression model. The other variables were fixed identically in both situations (commuting distance: 10 km; distance between the current residence and the one at the age of 14: 20 km; male; 35-50 years old; family structure: couple living with children).

[12] In particular, isolated women with children, migrants, less educated, and disabled people.

Such social inequalities regarding motility can explain differences in the proportion of supporting significant others according to education and commuting. Though highly educated people and commuters present a broader relational space, the former are more likely to have a higher proportion of significant others supporting them than less educated people. Conversely, commuters are more likely to have a lower proportion of supporters compared with non-commuters. Highly educated people have a stronger ability to create and maintain support ties with significant people who are not physically close than less educated people do. The spatial fragmentation between home and workplace, as well as time spent in transportation, could explain the reversed result by commuters. In more general terms, the broader spatiality of social anchorings has consequences on the way to tackle the issue of socio-spatial inequalities. It is notably hazardous to measure social segregation in an agglomeration from the only residential location. Because the residence municipality is not necessarily the centre of social life any more, a segregation measure must take into account the social anchorings realised in a more broadly space.

This chapter refers to some of the dimensions associated with the new spatiality of social integration. Several issues remain open at this stage and further explorations should clarify them. Questions arise about the impact of the network composition on its spatiality. If, for example, people living alone have networks which are more spatially fragmented and relationally less dense, it may be because they have no cohabiting partner. Conversely, perhaps some people have more locally anchored networks because they live with children who are old enough to be mentioned within their network. As suggested by the typology developed by Wellman et al. (1988), commuters might correspond to these modern individuals, having a physically widespread liberated community of friends and colleagues, whereas relatives might remain embedded in a more local community. It would also be worth exploring the influence of family recompositions or municipalities' accessibility on the spatial expansion of social relationships. Finally, by focusing on support ties, we weighted the emotional dimension of social ties, favouring strong ties compared with weak ties. By concentrating on a relationship form more characteristic of weak ties (relationship as information channel, influence relationships, more superficial discussions), bridging social capital might be shaped more markedly in situation of commuting.

The links between geographic mobility and social capital highlighted in this chapter should not be understood merely as an univocal effect of the first factor on the second one. Dynamics between spatial dimension and relational dimension are certainly more interactive; both dimensions may reinforce each other over the life course. If high mobility fosters a more widespread social network, this latter may lead to new forms of spatial mobility, given the less localised relational anchoring. A process of cumulative effects (Dannefer 1988) may then occur: small differences in the social network and the mobility experiences of one individual, when they combine, can produce very different life trajectories. Therefore, relocating in the first part of life may lead to a spatially and relationally more discontinuous social network, which in turn may foster a stronger willingness for new experiences of spatial mobility.

These analysis dimensions must still be scrupulously studied, but our overall finding is nevertheless solid. By favouring spatial mobility, modernity creates new means to be relationally anchored. The example of commuting that we developed in this chapter shows in particular that integration modes become relationally less dense and that space, within which social networks are established, can be, at the same time, very distant from the residence and fragmented.

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Chapter 3

La grande mobilité géographique pour des raisons professionnelles en Suisse : une étape de vie pré-parentale ?

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3.1 Résumé

Phénomène encore marginal il y a quelques décennies, les pratiques de grande mobilité géographiques liées au travail concernent une part de plus en plus importante des personnes en Suisse et plus généralement en Europe. A partir de données représentatives des personnes âgées entre 25 à 54 ans vivant en Suisse, l'étude cherche à établir à quelles étapes du parcours familial interviennent différentes formes de grande mobilité spatiale pour des raisons professionnelles. Elle montre que ces pratiques d'hypermobilité sont davantage associées à des individus qui ne sont pas entrés dans la parentalité, plutôt qu'elles ne représentent un moyen de réduire les tensions entre vie parentale et exigences du marché de l'emploi pour les familles. L'enquête analyse également la division du travail entre les deux conjoints lorsque l'un des membres de la famille - généralement l'homme- est mobile et précise dans quelle mesure les structures sociales et économiques suisses contribuent à renforcer des inégalités de genre.

Comme le soulignent Boltanski et Chiapello (1999), la capacité à se déplacer - où motilité - est devenue essentielle dans les sociétés de la modernité avancée, non seulement pour la carrière, mais plus généralement pour l'intégration sociale. Sous l'impulsion de la vitesse offerte par les systèmes de transport et de communication, les potentiels de mobilité spatiale se sont considérablement élargis, ce qui a pour conséquence de permettre aux familles de combiner et de concilier ce qui était socialement et spatialement inconciliable (Urry, 2000 ; Larsen et al., 2005 ; Kaufmann et Widmer, 2005). Il s'agit désormais d'utiliser les différents modes de transport (voiture, avion, métro...) et les différentes formes de mobilité (physique, virtuelle, téléphone...) comme une ressource (Kaufmann, 2002) ; une ressource pour se localiser résidentiellement dans l'espace lorsque deux actifs d'un ménage ne travaillent pas dans la même agglomération ; une ressource pour organiser des programmes d'activités quotidiens complexes ; une ressource pour accéder au marché de l'emploi dans un contexte de compétitivité et de multiplication des contrats à durée déterminée, ou encore pour répondre à l'injonction croissante de déplacements professionnels que connaît le monde du travail.

Cet essor des déplacements n'est pas sans poser des défis majeurs au développement et à l'organisation familiale. Les longs déplacements d'un

individu et son absence régulière du foyer peuvent en effet modifier en profondeur la dynamique du groupe familial, le rapport parents-enfants, la participation du partenaire mobile dans la vie familiale et ainsi engendrer des tensions dans le couple. Lors d'un déménagement, la distanciation de la famille d'avec son réseau de parenté et d'amis peut conduire à des dynamiques nouvelles dans son fonctionnement interne et dans le rapport qu'elle entretient avec son environnement social, en termes de sociabilité mais aussi de ressources domestiques, financières ou émotionnelles.

3.2 La mobilité spatiale des familles en Suisse

En Suisse, la mobilité spatiale des familles est marquée par des spécificités structurelles associées au marché du travail, des spécificités contextuelles associées respectivement à la configuration de l'armature urbaine, aux infrastructures de transport et aux institutions d'un Etat fédéral.

Le marché du travail suisse se caractérise en premier lieu par un fort phénomène de métropolisation. La création d'emploi se concentre toujours plus dans les deux principales régions métropolitaines du pays (Zürich-Bâle et Genève), si bien que la bi-résidentialité et la pendularité de longue distance se développent en Suisse entre centres urbains et régions périphériques avec une acuité particulière. Un système de transport dense (autoroutes, chemin de fer) ainsi que la concentration de la population suisse renforcent encore davantage ce phénomène. L'expansion géographique des arrangements de mobilité spatiale est remarquable : le trafic pendulaire entre les principales villes du pays par exemple, a doublé, parfois même triplé à chaque dernière décennie.

Le marché du travail suisse est également caractérisé par une participation très déséquilibrée des deux sexes. Les arrangements entre rôle professionnel et rôle familial résultent pour une grande part d'une division du travail inégale entre les deux conjoints. Bien qu'hommes et femmes participent formellement à la vie familiale, les dernières portent en effet les principales responsabilités dans la garde des enfants et les tâches ménagères (Levy et Ernst, 2002), dans un pays dominé par l'idée que les enfants sont un bien privé, dont la garde est avant tout de la responsabilité des parents et de la famille proche (Fux, 2008 ; Widmer et al., 2003). Une proportion importante de familles ne dispose que du seul revenu masculin et l'augmentation du nombre de femmes actives sur le marché du travail s'est réalisé essentiellement par une augmentation du temps partiel, signe de l'émergence d'une organisation plus flexible de la vie familiale qui conserve néanmoins ses caractéristiques sexuées et privées (Levy et al., 2002). Les personnes résidant en Suisse se marient la plupart du temps lorsqu'elles désirent des enfants et le parcours de vie familial demeure partiellement standardisé, malgré l'augmentation du nombre de divorces et de recompositions familiales (Sapin et al., 2007). Cette sexuation de la division du travail se manifeste par un très fort taux d'emploi à temps partiel des femmes avec enfants[13].

[13] En Suisse, près de 60% de l'ensemble des femmes actives ont un emploi à temps partiel. Parmi elles, 78% ont un ou plusieurs enfants.

Au niveau institutionnel, le fédéralisme suisse renforce une immobilité résidentielle des familles. Le programme scolaire varie dans chaque canton suisse et les politiques familiales sont largement décidées au niveau du canton, voire de la commune. Les familles sont alors incitées à rester dans un canton donné, afin d'éviter à leurs enfants de devoir changer de système éducatif. Les familles à revenu modeste sont en outre incitées à résider en centre ville, là où il y a généralement davantage de services qui leur sont destinés (structures de garde d'enfants, allocations familiales, etc.). A cette forte décentralisation politique s'ajoute une culture régionale importante, qui, à son tour, favorise un certain localisme régional.

3.3 Mobilité géographique et histoire familiale

Des études anglo-saxonnes récentes ont montré que la mobilité quotidienne varie considérablement selon le sexe et les étapes du cycle de vie familiale. Elles soulignent en particulier que le mariage ou la présence d'enfants diminuent considérablement le temps de pendularité des femmes (Dyck, 1989 ; Johnston-Anumonwo, 1992 ; Levinson, 1999). Pour McLafferty et Preston (1997), cette diminution de la mobilité féminine en situation maritale s'explique en partie par le fait que les familles mettent souvent la priorité sur la carrière du mari dans les décisions de localisation résidentielle. Une fois le déménagement dans la nouvelle région réalisé, la femme trouve généralement un emploi plus proche du foyer. Dans leur étude sur la vie mobile et sédentaire en Suisse dans les années 80, Bassand et al. (1985) ont également montré que, tant pour les hommes que pour les femmes, plus les personnes progressaient dans leur cycle de vie (mariage, enfants, âge supérieur à 35 ans), moins elles désiraient vivre de nouvelles expériences de mobilité spatiale et plus elles aspiraient à un style de vie sédentaire et à une intégration locale.

A partir de ces considérations, nous formulons trois hypothèses. Premièrement, les formes récurrentes de grande mobilité spatiale comme la pendularité de longue distance ou des voyages professionnels fréquents peuvent être considérées, en Suisse, comme résultant de stratégies visant à résoudre les tensions entre vie parentale et vie professionnelle. Deuxièmement, des formes plus définitives de déplacements professionnels, comme le déménagement dans une autre région ou la migration, interviennent principalement dans des ménages sans enfant. Troisièmement, par la division du travail très inégale au sein des couples suisses, ces stratégies de mobilité spatiale sont fortement sexuées. Nous faisons l'hypothèse qu'il existe d'une part, une plus grande proportion d'hommes hypermobiles que de femmes, et d'autre part, de plus fortes inégalités dans la répartition du travail domestique et éducatif au sein des familles avec un partenaire mobile que dans d'autres familles, tout particulièrement pour les formes récurrentes de mobilité.

La première hypothèse part d'une perspective dans laquelle l'articulation du travail et de la parentalité, tant pour les hommes que pour les femmes, peut être conceptualisée comme une forme de « conflit inter-rôle où les demandes issues des rôles professionnels et parentaux sont incompatibles sous certains aspects, si bien que la participation au champ soit professionnel soit parental est plus difficile, à cause de la participation à l'autre champ social » (Greenhaus et

Beutell, 1985). Devant l'opportunité d'obtenir un emploi plus prestigieux et mieux payé dans un lieu distant du domicile familial, certaines familles peuvent alors opter pour la pendularité plutôt que le déménagement, afin de préserver l'intégration du groupe familial au sein de son environnement social (logement, écoles, voisinage, réseau d'amis et de parents). Afin, par exemple, de bénéficier du soutien de parents dans la garde d'enfants, mais aussi afin d'éviter à l'enfant de devoir changer d'école, ces familles tendraient à choisir des formes d'hypermobilité récurrentes, telles que la pendularité quotidienne ou hebdomadaire de longue distance ou des voyages professionnels fréquents. Nous postulons que le réseau de transport performant et les spécificités institutionnelles suisses encourageant la stabilité résidentielle des familles servent également à renforcer ce phénomène.

La deuxième hypothèse insiste également sur les incompatibilités entre vie professionnelle et vie parentale. Dans ce cas-ci, l'absence d'enfant conduirait les individus à opter davantage pour des formes de franchissement de l'espace plus définitives, comme le déménagement ou la migration. Moins ancrés dans la fabrique sociale de leur lieu de domicile que des parents, les célibataires ou les couples sans enfants seraient amenés à davantage déménager pour saisir des opportunités professionnelles et ainsi éviter les déplacements récurrents dans l'espace géographique. Ce phénomène peut être également renforcé par le fait que les personnes sans enfant perçoivent davantage la mobilité résidentielle comme une opportunité de quitter leur environnement d'origine, d'aller à la rencontre de nouveaux lieux et de nouvelles personnes.

Enfin, la troisième hypothèse se fonde sur les plus grandes restrictions d'accès des femmes à la grande mobilité professionnelle. Par leur participation plus importante dans la sphère domestique et les emplois à temps partiel qui freine leur accession aux positions dirigeantes, mais aussi par les politiques familiales insatisfaisantes, notamment au-delà des zones métropolitaines, nous supposons une bien plus grande proportion d'hommes hypermobiles que de femmes. De plus, l'absence répétée de l'homme au sein du foyer en situation de pendularité, mais également la priorité mise sur la carrière masculine en situation de déménagement, nous laisse présager un taux d'activité professionnel de la femme plus faible et un investissement féminin dans la garde des enfants et les tâches ménagères plus important que parmi les couples où l'homme n'est pas mobile.

3.4 Données et résultats

Le programme européen de recherche « Job Mobilities and Family Lives in Europe » comprend la première enquête quantitative à l'échelle de six pays européens portant sur les interactions entre grande mobilité géographique et vie familiale. Elle permet donc à la fois de quantifier la grande mobilité dans ses différentes manifestations et d'en mesurer les implications dans une carrière professionnelle et pour la vie familiale[14].

[14] Pour plus d'informations sur l'enquête : www.jobmob-and-famlives.eu

Le volet suisse de cette enquête a été réalisé en 2007 dans les parties germanophone et francophone de la Suisse[15]. Les données sont constituées de deux échantillons : un premier échantillon de 750 personnes, représentatif de la population résidante suisse âgée entre 25 et 54 ans, ainsi qu'un second échantillon de 245 personnes, où seules les personnes âgées entre 25 et 54 ans présentant une grande mobilité spatiale pour des raisons professionnelles ont été questionnées. 995 personnes, toutes sélectionnées par méthode aléatoire, ont ainsi été interrogées par téléphone sur la base d'un questionnaire standardisé.

Quatre formes de grande mobilité spatiale pour raisons professionnelles ont été considérées. La première forme est constituée des pendulaires (ou navetteurs) de longue distance, définis par une durée de déplacement quotidien (au minimum trois fois par semaine) domicile-travail d'au minimum deux heures aller-retour. La seconde forme d'hypermobilité comprend les absents du domicile, soit les personnes ayant passé au minimum 60 nuits hors de leur domicile (principale) durant les douze derniers mois pour des raisons professionnelles. Cette catégorie est relativement hétérogène, puisqu'elle comprend tout aussi bien des personnes exerçant un métier impliquant de telles nuits hors foyer (représentants commerciaux, pilote de ligne, etc.) que des personnes disposant d'un logement secondaire proche de leur lieu de travail et voyageant par exemple tous les week-ends pour rejoindre leur foyer. La troisième forme de mobilité spatiale se réfère aux personnes ayant déménagé récemment (au cours des trois dernières années) pour des raisons professionnelles, soit à l'intérieur du pays sur une distance géographique d'au moins 50 kilomètres, soit au-delà de frontières nationales. La dernière catégorie des multi-mobiles comprend les individus combinant plusieurs formes de mobilité spatiale parmi les trois formes précédemment décrites. Enfin, deux catégories de personnes non mobiles ont été distinguées : la première comprend les individus ayant exercé par le passé un emploi impliquant une forme de grande mobilité (les ex-mobiles) et la seconde, ceux n'ayant jamais été mobiles. Cette distinction permet de tenir compte des effets à moyen ou long terme d'expériences de grande mobilité passées.

Le tableau 1 présente les principales caractéristiques socio-démographiques des six types d'arrangement de vie mobile. Il apparaît clairement que la grande mobilité spatiale et les formes pratiquées sont largement associées à la position des individus dans la structure socio-professionnelle et le parcours de vie. Les grands mobiles comprennent une surreprésentation d'hommes, de personnes de haut niveau de formation et de salaire, vivant sans enfant. De plus, les pendulaires de longue distance et les absents du domicile occupent davantage des postes à responsabilités hiérarchiques, tandis que les personnes ayant récemment déménagé sont davantage des jeunes, des étrangers et des habitants de grandes villes.

[15] Le canton italophone du Tessin étant exclu de l'enquête, ceci constitue environ 96% de la population suisse.

Tableau 1

Profils socio-démographiques des types d'arrangement de vie mobile

	Mobiles	Pendulaires	Absents du domicile	Pers. ayant déménagé	Multi-mobiles	**Non-Mobiles**	Ex-mobiles	Jamais mobiles	**Total**	V de Cramer
% [A]	**34**	18	5	7	4	**66**	29	37	**100**	
N	**338**	175	48	70	46	**657**	290	367	**995**	
% de femmes	**35**	33	19	46	40	**60**	56	63	**51**	.26**
% de 25-34 ans	**32**	21	22	60	39	**24**	24	25	**27**	.17**
% formation supérieure [B]	**56**	55	55	54	63	**37**	42	33	**43**	.24**
% parent vivant avec enfant	**40**	49	48	16	35	**62**	61	63	**55**	.26**
% revenu net ménage sup. à 7500 Frs [C]	**53**	54	56	44	53	**34**	35	33	**32**	.17**
% responsabilités hiérarchiques	**49**	52	51	36	57	**37**	47	30	**42**	.29**
% citoyens suisses	**83**	91	85	68	76	**88**	89	87	**86**	.17**
% résidents grands et moyens centres urbains	**29**	28	19	40	22	**20**	21	19	**23**	.09*

* $p < .05$ ** $p < .01$

[A] La population des grands mobiles ayant été sur-échantillonnée, les proportions concernant la population résidante suisse ne doivent pas être inférées des proportions présentées dans ce tableau.

[B] Niveau de formation correspondant à un diplôme d'une université ou d'une haute école (professionnelle ou technique).

[C] Pourcentages calculés uniquement pour les ménages avec partenaire co-résidant.

L'hypothèse selon laquelle, en Suisse, les hommes pratiquent dans une bien plus large proportion que les femmes les différentes formes de grande mobilité est largement vérifiée, avec un taux de mobilité de 46% pour les hommes contre 23% pour les femmes (V de Cramer=.24 ; p<.01). Cette différence s'atténue sensiblement si on analyse uniquement les hommes et les femmes employés à plein temps (46% contre 37% ; V de Cramer=.09 ; p<.05) et disparaît totalement si l'on compare les hommes et les femmes vivant seuls (44% contre 45%; n.s.).

L'influence très importante du cycle de vie sur la mobilité spatiale des femmes est également confirmée par les analyses présentées dans le tableau 2. Les femmes mobiles vivent beaucoup moins souvent avec des enfants et, dans une moindre mesure, avec un partenaire, que les femmes non mobiles. Ce phénomène ne se vérifie en revanche pas dans le cas des hommes. Contrairement aux affirmations de Bassand et al. (1985), les hommes vivant en couple et sans enfants présentent une plus forte tendance à être mobiles que des hommes célibataires. Cette différence tient pour toutes les catégories d'âge.

De manière à avoir une vision globale des différents facteurs influençant les différentes formes de grande mobilité associées au travail, tout en contrôlant les possibles effets de structure, nous avons procédé à une série d'analyses de régression multinomiale. Ces analyses nous permettent d'identifier, parmi un

ensemble de paramètres, ceux qui sont significativement associés à une forme de mobilité, en comparaison avec les personnes qui n'ont jamais été mobiles et qui constituent la catégorie de référence. Nous avons uniquement inclus les individus actifs dans les analyses, soit 870 personnes en tout, dont 329 personnes mobiles.

Tableau 2

Grande mobilité des individus en fonction de la structure familiale selon le sexe

	Hommes				Femmes			
	vit seul	vit avec partenaire	vit sans part. avec enfant	vit avec part. et enfant	vit seul	vit avec partenaire	vit sans part. avec enfant	vit avec part. et enfant
Non mobiles	56	48	62	57	55	62	77	91
Mobiles	44	52	38	43	45	38	23	9
Total (N)	**100 (108)**	**100 (131)**	**100 (8)**	**100 (239)**	**100 (86)**	**100 (124)**	**100 (39)**	**100 (260)**
	n.s.				V de Cramer =.37 ; p<.01			

Les régressions multinomiales considèrent la typologie d'arrangements de vie mobile comme variable dépendante (tableau 3). Deux ensembles de paramètres ont été évalués : le premier comprend les données démographiques de base, alors que le second inclut ces mêmes variables ainsi que des données sur le contexte résidentiel et la position professionnelle du répondant (responsabilités hiérarchiques, simple employé ou indépendant). Dans le paragraphe qui suit, nous ne décrivons que les associations significatives au seuil de .05.

En comparaison avec les personnes qui n'ont jamais été mobiles, les pendulaires de longue distance sont davantage des hommes, des personnes qui vivent seuls, en couple sans enfant ou en situation monoparentale. En outre, ils disposent plus souvent de moyens et hauts revenus, occupent des positions hiérarchiques et habitent dans des villes de taille moyenne. Les absents du domicile se distinguent des personnes n'ayant jamais été mobiles par le fait qu'ils sont davantage des hommes, de hauts revenus, des indépendants et des personnes vivant dans des villes de taille moyenne. Les personnes ayant récemment déménagé sont davantage des hommes, des jeunes, des personnes vivant seules ou en couple et de niveau de formation supérieur. Enfin, les personnes combinant plusieurs formes de mobilité sont plus souvent des hommes, des personnes vivant seules ou sans partenaire avec enfants, de haut niveau de formation et avec des postes à responsabilité hiérarchique.

Tableau 3

Régression multinomiale des arrangements de vie mobile sur différentes variables (Odds ratios)(Réf. : Personnes qui n'ont jamais été mobiles N=224)

	Pendulaire		Absent du domicile		Personne ayant déménagé		Multi-mobile		Ex-mobile	
Sexe (homme)										
Homme	2.5**	2.2**	15.3**	17.7**	2.2*	1.9*	2.7*	2.5*	1.5	1.3
Femme	-	-	-	-	-	-	-	-	-	-
Age										
25-34 ans	1.1	1.2	1.4	2.1	5.3**	5.5**	2.0	2.4	1.1	1.3
35-44 ans	1.1	1.2	.4	.4	2.0	2.0	1.3	1.4	1.3	1.3
45-54 ans	-	-	-	-	-	-	-	-	-	-
Structure familiale										
Vit seul	2.7*	3.0**	2.1	2.1	15.1**	15.0**	5.1**	7.0**	1.2	1.3
Vit avec un partenaire	2.1**	2.2**	1.8	2.2	8.8**	8.4**	2.3	2.6	1.7*	1.8*
Vit sans part. avec enfant	3.1*	3.5*	8.4	9.1	3.5	3.2	8.9**	12.3**	2.1	2.4
Vit avec part. et enfant	-	-	-	-	-	-	-	-	-	-
Niveau de formation										
Ecole élém., apprentissage	-	-	-	-	-	-	-	-	-	-
Lycée, école form. générale	1.3	1.2	1.6	1.7	2.1	1.8	1.7	2.0	.7	.7
Université, écoles tech. sup.	1.5	1.5	1.3	1.2	2.5*	2.2*	2.8*	2.8*	1.3	1.2
Revenu du ménage (CHF)										
5000 ou moins	-	-	-	-	-	-	-	-	-	-
5001 à 7500	2.3**	2.4**	2.0	2.5	1.5	1.6	1.2	1.2	.9	.8
7501 ou plus	3.2**	3.3**	5.7**	6.9**	2.4	2.3	1.8	1.5	1.1	1.0
Position hiérarchique										
Sans resp. hiérarchique		-		-		-		-		-
Avec resp. hiérarchique		2.1**		2.2		1.5		3.6**		2.2**
Indépendant		1.3		6.1**		1.7		2.2		1.2
Contexte résidentiel										
Périphérique		-		-		-		-		-
Périurbain		.9		.7		1.7		3.1		1.2
Suburbain		.4**		.3		1.3		1.7		.7
Petit centre		.3*		.2		1.5		.9		1.3
Centre moyen		1.4		.4		2.5		3.3		1.2
Grand centre		1.2		1.2		2.1		2.6		.8
Taille de la ville/du village										
0 - 5000 habitants		-		-		-		-		-
5001 - 10'000 habitants		2.8**		3.3		1.1		.6		2.1*
10'001 - 50'000 habitants		2.5*		4.4*		1.6		.9		1.4
50'001 - 200'000 habitants		.5		.7		.6		.3		.9
N	**131**		**29**		**54**		**34**		**182**	

* p < .05 ** p < .01

Afin de juger de la stabilité des estimations données par la régression, une analyse de colinéarité des variables explicatives a été effectuée (tableau non reporté). Suivant une procédure standard (Ritschard, 1990), l'analyse a révélé qu'aucun indice de colinéarité (racine carrée du facteur d'inflation de la variance VIF) entre une variable explicative donnée et les autres variables n'excédait 2.0. Seules les variables grand centre, centre moyen et ville de plus de 10'000, respectivement 50'000 habitants se sont approchés de cette valeur, par la forte corrélation entre ville centre et ville de

grande taille. Suivent ensuite les variables haut revenu et haut niveau d'éducation, qui présentent un indice de colinéarité d'environ 1.3, par la forte corrélation entre haut salaire et haut niveau de formation.

Il est remarquable de constater qu'à l'exception des personnes ayant récemment déménagé, l'âge n'est pas significatif lorsque la structure familiale est prise en compte. En d'autres termes, les individus des cohortes récentes sont plus souvent des pendulaires de longue distance ou des multi-mobiles par le fait qu'ils ne sont pas parents. Pour les pendulaires de longue distance et les absents du domicile, le revenu du ménage est un meilleur prédicteur que le niveau de formation. A l'inverse, les personnes ayant déménagé et les multi-mobiles, plus jeunes et plus souvent en début de carrière professionnelle, gagnent moins et se distinguent davantage par leur niveau d'études. Finalement, les personnes ayant eu des expériences de grande mobilité par le passé ne se distinguent guère des personnes n'ayant jamais été mobiles en fonction des paramètres retenus. Les ex-mobiles vivent néanmoins davantage en couple sans enfant et ont plus souvent des responsabilités hiérarchiques que les personnes n'ayant jamais été mobiles.

La grande mobilité d'un partenaire renforce-t-elle la répartition sexuée du travail professionnel et domestique au sein du couple ? Le tableau 4 présente le taux d'activité du partenaire co-habitant en fonction de la grande mobilité spatiale de l'homme, respectivement de la femme, sous contrôle de la présence d'enfant dans le ménage. Il est frappant de constater que la mobilité du conjoint n'influence pas significativement le taux d'activité de sa partenaire. En l'absence d'enfants, la participation de la femme au marché du travail est même légèrement supérieure lorsque l'homme est mobile, alors que cette participation diminue en situation de parentalité. On retrouve ce même effet lorsque la femme est mobile, mais de manière plus marquée : en présence d'enfant dans le foyer, l'homme est significativement moins actif professionnellement lorsque sa partenaire est mobile.

En ce qui concerne les tâches éducatives (tableau 5) et les tâches ménagères (résultats non reportés), on peut observer une diminution de la participation de l'homme en situation de grande mobilité, mais, à nouveau, cette diminution n'est pas significative. En revanche, le partage des tâches est significativement plus égalitaire lorsque la femme pratique une forme de grande mobilité.

Tableau 4

Taux d'emploi du partenaire co-habitant en fonction de la mobilité selon le sexe, sous contrôle de la présence d'enfant dans le ménage

Sans enfant	Homme		Femme	
	Non mobile	Mobile	Non mobile	Mobile
partenaire inactif	23	15	11	4
partenaire à temps partiel	26	25	8	11
partenaire à plein temps	51	60	81	85
Total (N)	**100 (62)**	**100 (67)**	**100 (75)**	**100 (45)**
	n.s.		n.s.	

Avec enfant	Homme		Femme	
	Non mobile	Mobile	Non mobile	Mobile
partenaire inactif	37	45	4	18
partenaire à temps partiel	48	46	3	0
partenaire à plein temps	15	9	93	82
Total (N)	**100 (134)**	**100 (102)**	**100 (224)**	**100 (22)**
	n.s.		V de Cramer =.20 ; p<.01	

Tableau 5

Partage des tâches éducatives des enfants en fonction de la grande mobilité selon le sexe

	Homme		Femme	
	Non mobile	Mobile	Non mobile	Mobile
principalement l'homme	11	7	1	13
de manière égale	43	32	27	40
principalement la femme	46	61	72	47
Total (N)	**100 (95)**	**100 (69)**	**100 (167)**	**100 (15)**
	n.s.		V de Cramer =.26 ; p<.01	

3.5 Grande mobilité spatiale professionnelle : un antécédent à la vie de famille

Si nous revenons sur nos hypothèses de départ, les différentes analyses présentées ci-dessus tendent à montrer que la pendularité de longue distance et les nuits hors foyer ne sont pas principalement expliquées par des situations de double contrainte subies par les personnes vivant en famille. L'hypothèse selon laquelle ces formes de mobilité géographique récurrentes s'imposent pour préserver l'environnement habituel de la famille n'est pas vérifiée. Au contraire, les pendulaires de longue distance vivent moins souvent avec partenaire et enfants.

A l'exception des absents du domicile, la grande mobilité spatiale pour raisons professionnelles en Suisse doit plutôt être interprétée, selon nous, comme un style de vie intervenant à une étape de vie particulière, souvent décrite comme la transition à l'âge adulte. Les jeunes de haut niveau de formation et les

couples sans enfant tendent à devenir mobiles par le fait que ce choix fait parti d'une trajectoire de mobilité sociale. Attirés par des opportunités de carrière, ils ont notamment tendance à quitter leur résidence d'origine, en particulier lorsqu'ils vivent dans des petites villes ou des régions périphériques ou alors à penduler, en particulier quand ils habitent dans des villes de taille moyenne.

Si la présence d'enfants ne favorise pas la pratique de pendularité ou les nuits hors foyer, la question est alors de savoir pourquoi certains individus optent pour de telles formes récurrentes de mobilité plutôt que pour un déménagement. Pour les absents du domicile, une majorité d'entre eux (71%) exerce leur métier entre différents lieux de travail au cours de l'année, si bien qu'il ne peut être question de déménager. Ni la position dans le parcours familial, ni l'âge n'influencent sensiblement la pratique de cette mobilité. Si un certain nombre d'entre eux - dans une très large majorité des hommes - continuent à s'absenter de leur foyer à un âge avancé et alors qu'ils ont des enfants, c'est, selon nous, parce que leur activité et leurs responsabilités hiérarchiques le nécessitent.

Ceux qui décident de penduler refusent de déménager parce qu'ils sont plus fortement ancrés dans la fabrique sociale de leur lieu de domicile. Mais encore une fois, l'attraction au lieu d'origine semble davantage liée à des facteurs tels que le réseau de parents et d'amis ou l'attachement au lieu (y compris le logement) qu'à la présence d'enfants. La plus forte probabilité d'être pendulaire lorsque l'on vit seul, en couple sans enfants ou en situation monoparentale peut s'expliquer par différents facteurs. Les couples sans enfants peuvent avoir tendance à davantage penduler, parce qu'ils doivent combiner deux lieux de travail potentiellement distants l'un de l'autre. Un système de transport dense et la proximité des centres métropolitains depuis des régions périphériques en Suisse permettent en effet de vivre dans une ville et de travailler dans une autre. Si un certain nombre de pendulaires cessent leur hypermobilité quotidienne à l'arrivée de l'enfant, cela peut alors partiellement être expliqué par le fait qu'un certain nombre de femmes cessent leur activité professionnelle à la naissance d'un enfant. La Suisse étant caractérisée par une première naissance relativement tardive (Fux, 2008 ; Kellerhals et Widmer, 2005), on peut également supposer que certaines familles repoussent la parentalité, afin d'accumuler un capital économique suffisant pour élever leurs enfants dans un pays aux exigences élevées en ce qui concerne les besoins des enfants (à la fois matériels et relationnels). La mobilité spatiale durant la phase pré-enfant peut alors être interprétée comme une stratégie pour rassembler ce capital. Au moment où la mobilité sociale ascendante est plus ou moins achevée, le couple saisit l'opportunité de réduire la distance domicile-travail en déménageant, voire en changeant d'emploi. Pour les personnes vivant en situation monoparentale, dans la plupart des cas des femmes, la plus forte probabilité de penduler ou de combiner différentes formes de grande mobilité peut provenir du fait qu'elles sont susceptibles d'avoir déménagé à la suite de la rupture conjugale et qu'elles doivent assumer seules les contraintes spatio-temporelles induites par l'activité professionnelle et la garde d'enfants.

Bien que les classes d'âge les plus jeunes de l'échantillon ont un taux de mobilité plus élevé que les classes d'âge plus avancées, l'impact de l'âge sur la mobilité est relativement faible par rapport à celui de la position dans le parcours de vie familial. Ce résultat peut s'expliquer, selon nous, par une certaine

déstandardisation des parcours de vie, processus qui a partiellement déchronologisé les étapes de la vie familiale. Aujourd'hui, par exemple, on se met en couple ou on a des enfants à des âges beaucoup plus variables que dans les années 60. Cette variabilité de la chronologisation des transitions explique indirectement la relative faiblesse de la corrélation entre âge et mobilité.

L'impact du cycle de vie sur la mobilité spatiale est particulièrement saisissant d'un point de vue sexué. Alors que les femmes sont tout autant mobiles que les hommes en situation pré-conjugale, l'écart entre les deux sexes se creuse lorsqu'on observe les couples et plus encore les couples avec enfants. La parentalité en Suisse est en effet associée à une forte diminution de l'activité professionnelle des femmes, qui soit quittent totalement le marché du travail, soit diminuent leur taux d'activité (Levy et al., 2007). Ces phénomènes basés sur le mécanisme de ségrégation sexuée du marché de l'emploi, sont profondément ancrés dans les structures sociales et économiques du pays, avec des services de garde d'enfants largement sous-développés et l'accent mis sur les responsabilités privées dans la garde des enfants. Cette situation conduit à mettre la priorité sur la carrière du conjoint, de telle sorte que ce sont le plus souvent les femmes qui suivent leur partenaire en cas de déménagement professionnel et que celles-ci font en sorte de trouver du travail à proximité du logement si elles conservent un emploi.

L'hypothèse selon laquelle la mobilité de l'homme provoque une diminution significative de son implication dans les tâches domestiques et la garde des enfants, ainsi qu'une diminution de l'activité professionnelle de sa conjointe n'est en revanche pas vérifiée. L'accroissement du budget temps de déplacement et l'absence répétée du foyer par l'homme ne semblent alors pas être des facteurs décisifs quant à la division sexuée du travail professionnel et domestique. On peut par exemple penser que l'homme compense ces absences en s'impliquant à d'autres moments dans la vie familiale (lors de week-ends, soirées, etc.), ce qui ne diffère pas significativement de la situation d'hommes actifs non mobiles. Lorsque, beaucoup plus rarement, la femme est mobile en situation de parentalité, l'homme travaille sensiblement moins souvent à plein temps et s'investit davantage dans les tâches ménagères et la garde des enfants. Il en résulte une répartition plus équilibrée entre rôle professionnel et rôle familial.

Nos analyses ont révélé l'impact significatif de la position dans le parcours de vie familiale sur la pratique de grande mobilité spatiale. Néanmoins, seule une approche longitudinale permettrait une vérification empirique complète de ces processus. En mesurant l'évolution de la grande mobilité au cours du temps et des étapes de vie familiale, elle pourrait notamment confirmer que certains points d'inflexion du parcours familial, comme la constitution du couple, la naissance du premier enfant ou un divorce, conduisent à une transition dans la mobilité des familles.

Cette étude présente un premier examen des liens entre la mobilité géographique à grande échelle en Suisse et la structure familiale. De nouvelles dimensions d'analyse, comme par exemple le fonctionnement conjugal et familial, permettront de mieux saisir selon quelles dynamiques s'articulent vie mobile et vie familiale et quel est le sens donné par les couples à la mobilité.

Une comparaison internationale, notamment avec un pays comme la France, caractérisé par un taux d'activité professionnel des mères plus important qu'en Suisse, permettra également d'établir dans quelles mesures les structures sociales et économiques d'un pays influencent la position de la grande mobilité spatiale dans le parcours de vie familial.

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Chapter 4

Does it matter for us that my partner or I commute? Spatial mobility for job reasons and the quality of conjugal relationships in France, Germany, and Switzerland

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4.1 Abstract

Spatial mobility has often been considered a detrimental factor for families for various reasons, stemming from increasing stress, unpredictability of daily life, increasing gender inequalities, and decreasing investment in parenting and partnerships due to time and space constraints. This contribution considers how daily long-distance and weekly commuting, frequent absence from home, and long-distance relationships for job-related reasons affect conjugal quality. To investigate this issue, we used data from a large European survey on job mobility and family life (JobMob), based on 2,914 individuals reporting a stable partnership and living in France, Germany, and Switzerland. We first empirically defined eight positions in the social space according to the current mobility practice from each partner and major socio-demographic variables. We then explored the extent to which those positions affect conjugal satisfaction and conjugal conflict within the three national contexts, complementing the analyses by including the process by which one became mobile. We found that job mobility had no significant effect on conjugal quality. Lower quality of conjugal relations rather concerned mobile people who experienced decisions to become mobile both negatively and collectively. We further discuss the importance of our results for understanding the functioning of contemporary couples facing mobility demands.

4.2 Introduction

Spatial mobility has often been considered a detrimental factor for families for various reasons, stemming from increasing stress, unpredictability of daily life, increasing gender inequalities, and decreasing investment in parenting and partnerships due to time and space constraints. This contribution considers how recurring forms of job-related spatial mobility affect conjugal quality and conjugal conflict. Recurring forms of job-related spatial mobility summarise all variations of commuting mobility and of frequent absence from home because of longer business trips and faraway workplaces. To investigate this issue, we used representative data from the “Job Mobility and Family Lives in Europe” (JobMob)

project[16] for France, Germany, and Switzerland, three countries with distinct family policies, spatial structures of population, and transport infrastructures. This transnational data enabled us to estimate the reliability and robustness of our results across various contexts, as well as the extent to which macro- and micro-sociological factors contribute to the effect of job mobility on families.

4.2.1 Job mobility as a detrimental factor to conjugal quality?

Previous research has shown that spatial mobility, whatever the form practiced, requires people and their families to adjust and cope with a variety of strains (i.e. Anderson/Spruill 1993; Hardill 2004; Kümmel 2005; Willis/Yeoh 2000). Some studies have more particularly highlighted specific burdens on the partnership linked with job mobility. The study of Schneider et al. (2002) in Germany showed that about one third of people which are highly mobile for occupational reasons declared problems in their relationships caused by a mobile way of life. Problems were particularly frequent in the case of weekend commuters and long-distance relationships. For the most part, they declared having too little time to invest in their relationships, and thus partners increasingly went their separate ways. Mobile people also complained about the lack of spontaneity in their relationships. Their mobile lifestyle allowed them little time to share spontaneous adventures. Conjugal conflicts that are directly related to mobility were, however, rarely mentioned. Interviewees rather referred to spill-over effects, in which the job stress of the mobile persons led to conflicts and quarrels between the partners. In another study of German career soldiers relocating frequently and practicing weekend commuting (Biehl et al. 2005; Collmer 2002, 2005; Wendl 2004, 2005), it was further observed that commuters often feel as a “guest in their own home”. To take advantage of their weekends at home with the family, they worked more during the week, leading to increased stress. At the same time, the weekend was often overloaded with leisure activities which caused additional leisure stress. In the case of absence of several months from the family home, partners suffer from the separation. Spouses missed the closeness of family and sexual intimacy and developed a substantial fear of loss, in particular among younger couples (Biehl et al. 2005).

As for research on family functioning, it was highlighted that couples emphasising a high autonomy between partners are more likely associated with a lower quality of conjugal relations (Widmer et al. 2003; 2006). This also prevails for couples having frequent contacts with the outside world. Job mobility could thus affect the quality of conjugal interactions by fostering partners’ individual autonomy and personal investments outside of the couple at the expense of similarity of orientations and ideas, time spent together, and consensus. Another important dimension to consider is that conjugal quality is influenced by the characteristics of both partners’ social networks. Couples with dense networks characterized by supportive relationships with relatives and friends and both partners’ frequent contact with them, present a significantly higher conjugal quality than couples with sparse and asymmetrical networks (Widmer et al. 2003, 2009). Precisely, some pioneer studies revealed that, in the situation of long-distance commuting, mobile people present personal networks

[16] For more information about the survey: www.jobmob-and-famlives.eu

which are less dense (Viry et al. 2009) and more centred on the immobile partner than non-mobile people, because contacts outside of the professional environment are unlikely and often delegated to the spouse (Becerril 2003; Schneider et al. 2002; Soriano 2005). By favouring sparse and unicentric networks, as one partner's network is predominant, job mobility could thus, likewise, affect conjugal satisfaction.

Little is known about the consequences of recurring forms of job-related spatial mobility on conjugal functioning and conjugal networks and a systematic overview based on representative data and predictive models is missing. Although it is empirically proven that, firstly, a strong orientation toward partners' autonomy and, secondly, sparse and asymmetrical conjugal networks have negative effects on couples, proof of such effects for job mobility are currently lacking. Based on the literature, we hypothesize that job mobility is associated with poorer conjugal interactions as it decreases couple cohesion, network density, and network symmetry between the two partners.

4.2.2 Mediating effects on the relationship between job mobility and conjugal quality

However, several other processes may interact with the impact of job mobility on conjugal relationships at the micro, meso, and macro levels and make this impact less widespread than expected. Overall, job mobility practices seldom have a general effect on all individuals in the same way and its impact on conjugal quality may concern some social categories more specifically. A variety of factors, such as life course, social policy, and cultural meanings can play a mediating effect on the way in which job mobility influences couple cohesion, couple networks, and herewith conjugal quality.

The mediating effect of the mobility form

First of all, job mobility actually covers a variety of situations which may have distinct consequences for conjugal functioning and conjugal networks. Previous research indeed has stressed the importance of making a distinction between various forms of mobility (Limmer 2005; Schneider et al. 2002). Because of absence during the week, weekend commuters, persons on frequent business trips, and people in long-distance relationships for job-related reasons are more likely to emphasise partners' autonomy than daily long-distance commuters. In some cases, the irregularity and unpredictability concerning the time and duration of absence could also reinforce individual autonomy, because couple routines would be more difficult to implement. Concerning social networks, daily and weekend commuters have fewer contacts outside of the professional environment, and such contacts are more delegated to the immobile partner than people in long-distance relationships (Schneider et al. 2002). Rather than measuring the impact of job mobility as a homogeneous category, a careful empirical examination of the consequences of its various types should then be done before any conclusion can be drawn. Moreover, by choosing the form of mobility that is most adapted to their degree of autonomy, couples may potentially lessen the impact of job mobility on conjugal quality.

The mediating effect of the life course

Empirical research additionally shows that much job mobility happens in the early life stages of adulthood, especially to single persons or individuals with short-term intimate relationships early in their professional careers. This corresponds to the stage of life in which individuals have not yet had children. As conjugal quality typically decreases when partners become parents (Belsky/Pensky 1988; Cowan/Cowan 1992), the impact of job mobility on conjugal quality might be weaker than expected, especially in life stages where partners are not yet parents. Indeed, previous research has shown that childless couples already place stronger emphasis on individual autonomy as a leading value (Widmer et al. 2003). Therefore, they may adapt more easily to the demands of job mobility than older couples, who have to face the constraints associated with parenthood in terms of unequal division of household labour and time and interests to be spent in common. What is proposed here is the inclusion of the life course as an intervening variable between job mobility and conjugal quality. Based on previous analyses (Viry et al. 2008), we have reason to believe that job mobility is less likely practiced in situations where young children are involved. Moreover, because job mobility is strongly gendered (with males much overrepresented), only few women with children are job-mobile. This organization of family life may actually insulate a majority of couples from the burdens associated with job mobility.

The mediating effect of the process by which one becomes mobile

In a life course perspective, it is also necessary to take the ways in which one has become job-mobile into account. The hypothesis that all individuals make personal decisions which optimize their preferences in the mobility realm is not supported by empirical evidence (Widmer et al. 2010). Various processes by which individuals become mobile coexist. Some individuals are constrained by the structural dimensions of their environment to become mobile (lack of job opportunities in the area of residence, etc.) and consider the process by which they have become mobile very negatively. Others, while emphasizing the negative dimension of the situation, see it as a personal decision. Social psychology stresses the importance of self versus hetero attributions of responsibility as a main way of achieving self-worth (Rotter 1966). It is likely that the ways in which the process of becoming mobile is experienced by individuals have consequences for conjugal quality. We expect that individuals who consider that their mobility is a consequence of their own choice and who see it positively cope better with the constraints associated with job mobility on conjugal interactions (lower couple cohesion, sparse and asymmetrical conjugal networks) and have thus a higher conjugal quality than those who see it as a consequence of their context (including their interpersonal relationships, of which their partner is central) and who perceive it negatively.

The mediating effect of the social embeddedness

Former analyses have shown that the position and resources of individuals in the social space significantly shape their mobility practice, mobility perceptions, and mobility consequences in tilting the balance of constraints and opportunities (Schneider/Meil 2008; Widmer et al. 2010). In particular, people with high levels

of educational and economic resources are more likely to follow a social mobility trajectory which requires them to be spatially mobile in order to get a high-value job, often concentrated in metropolitan areas. Moreover, these individuals are more often employed in occupations that require inherently high mobility practices (business trips, consulting, airline pilot, etc.), where being mobile makes more sense and is better perceived than in other settings. Conversely, more disadvantaged individuals are more often mobile because of precarious working situations and higher constraints in their residential choices (work contracts of limited duration, settlements in peripheral areas and on the outskirts of urban centres, etc.), which can lead to more problematic situations (Baccaini 1994; Kaufmann et al. 2001). . Additionally, among households with modest economic means and low educational credentials, both partners are more forced to work full-time, either for survival reasons or as a way to promote a middle-class lifestyle. The resulting commuting forms are then more likely to be problematic for conjugal functioning and conjugal networks than in the case of a well-heeled dual-career couple that decides to work and commute on an upward career trajectory (Challiol/Mignonac 2005). Furthermore, there is evidence that spatial mobility is differently experienced by men and women. Permanent forms of spatial mobility, such as daily or weekly commuting, are pre-eminently practiced by men (Limmer 2004, Schneider/ Meil 2008). The gendered division of labour, with women still mainly responsible for housekeeping and children, as well as the set of gendered norms and constraints internalised by men and women, mainly explain the weak mobility rate and mobility willingness among women. Because of the strains between family tasks and job responsibility, job-related mobility is more likely to be experienced in a problematic way by women, in particular mothers, than men. In conclusion, because mobility is more burdensome for women and people with low educational and economic resources, we expect that they will have a lower conjugal satisfaction and more frequent conjugal conflicts than mobile men and mobile people with high resources. Previous research has nevertheless shown that job mobility is predominantly associated with highly-qualified people. Because these people already place higher emphasis on individual autonomy than less qualified persons (Widmer et al. 2003), the overall impact of job mobility on conjugal quality may be limited.

The mediating effect of the national context

In a macro-sociological perspective, additional factors are likely to intervene. Indeed, the impact of job mobility on conjugal functioning and conjugal networks is likely to be weakened or increased depending on social policies, especially those which deal with families. Stemming from Esping-Anderson's typology of welfare states (1990), Fux (2002) stresses the presence of three distinct types of family policies which may interact quite distinctly with job mobility. Social democratic regimes characterized by a strong central government (e.g., Scandinavian countries, to a lesser extent France) promote gender equality and universal coverage of needs for citizens; they do not promote one type of family situation (e.g., married couples and their children) over another one (e.g., single-parent family). Quite distinctly, familialistic regimes (e.g., Portugal, Italy, Spain, West Germany) consider it their task to support the nuclear family – but not to

take the place of it – within a logic of subsidiarity which seeks to promote the inner strength of families. The role of women as mothers is stressed rather than their independence as individuals. Finally, liberal family policies (e.g., the United States, UK, Switzerland) stress the separation of family issues and policy issues. Individuals are considered fully responsible for the way in which they organize their family lives, and the state should not interfere with individual decisions either by regulating or by subsidizing any family arrangements. Families are more dependent on the economic market in that latter case than in the two former cases. These three approaches of family life by state policies are likely to have consequences for the impact of mobility on conjugal quality. Indeed, in liberal systems, couples are left by themselves to face the burdens associated with mobility so that the partners' autonomy and the decrease of social integration could be more marked. In familialistic systems, only gendered organizations receive some resources from the state, whereas in social democratic systems, alternative family forms (such as living apart together) may get some attention from legislators. Note, however, that family policies only intervene when children are at stake. Since job mobility mostly takes place before the arrival of children, their influence on conjugal quality may be limited.

In addition to family policies, a whole series of contextual factors relating to space likewise may influence the quality of conjugal relations between mobile individuals. To begin, let us mention the quality of the amenities in residential neighbourhoods that serve as recreational facilities for both preschoolers (day cares) and school-age children (after-school programs, supervised study halls, recreation centres). Such facilities are pivotal to quality of life insomuch as they relieve activities schedules of the non-mobile partner when children are present in the household. Generally speaking, the quality of transportation systems (their reliability, etc.) naturally influences conjugal relations (Kaufmann/Widmer 2006). For example, comfortable, regular, and frequent high-speed rail service allows individuals to control and limit the impact of mobility on their personal lives and the lives of those close to them; conversely, a mediocre system naturally introduces temporal questions that are difficult for mobile individuals and their families to handle on a day-to-day basis (Kaufmann et al. 2010).

Finally, it is worth noting that the spatial structure of a country or region's population dispersal can also affect the quality of conjugal relations by influencing the form under which mobility is practiced. Two ideal types can be differentiated in this domain: the first is countries with a Rhineland-type spatial structure (such as Rhineland Germany, Belgium, the Netherlands, and Switzerland), which are characterized by a predominance of medium-sized urban agglomerations (100,000 to 500,000 inhabitants) roughly 50 to 100 kilometres apart – in other words, a framework that favours long-distance commuting. The second is centralized countries with a dominant capital, where agglomerations are spread out (France or Spain, for instance)—in other words, a framework that favours overnighting and long-distance relationship practices (Kaufmann et al. 2010). We therefore expect that individuals living in a national context with a state-based regime and high-quality transport infrastructures cope better with the burdens associated with job mobility on conjugal interactions and have thus a higher conjugal quality than those living in a national context characterized by weak family policies and poor transport amenities.

Based on the literature, we hypothesize that job mobility has an effect on conjugal quality because it affects couple cohesion and social integration. However, we also expect that the impact of job mobility is distinct according to the type of mobility, some mobility types being more demanding to family life than others. Mobility is moreover one dimension of the position of individuals in the life course and the social space. Indeed, job mobility has quite different consequences according to the family life stage and the social embeddedness (income, sex, and level of education) of individuals. By the same token, job mobility is very much correlated with those dimensions (Schneider/Meil 2008). Therefore, rather than testing the effect of mobility independently from other dimensions, we will consider in the analyses below how types of social positions (including mobility of both partners) influence conjugal quality. This static approach of mobility will be complemented by taking the process by which one becomes mobile as well as the national context into account.

4.3 Data

The data are drawn from the European project "Job Mobilities and Family Lives in Europe" (JobMob), which is the first large quantitative European survey studying the interactions between family life, professional career, and all forms of job-related high mobility (daily and weekly long-distance commuting, frequent business trips, migration, etc.). All respondents aged 25–54 were selected by random method and questioned by phone on the basis of a standardized questionnaire in six European countries (Belgium, France, Germany, Poland, Spain, and Switzerland). Spatially mobile people were additionally oversampled. For the present study, data from France, Germany, and Switzerland were used. Although sharing similar economic development, these three countries feature contrasting realities in terms of social policies, gendered division of labour, mobility culture, transport infrastructures, and spatial structure of population (see above). This diversity of contexts ensures a high degree of reliability and robustness of findings, as well as possible interpretations of national differences according to these specificities.

The unweighted sample is composed of 2,914 persons from the three national contexts aged 25–54 who mentioned a steady life-partner. Two different weighting procedures were applied. The first procedure created a sample with equal national sample size and adjusted for response, household size, and oversampling of mobile people biases. The representative (weighted) sample so obtained is composed of 2,188 persons. For analyses on mobile people only, a second weighting procedure eliminated non-mobile people and adjusted for response and household-size biases. This (weighted) sample includes 779 mobile persons. All sample sizes mentioned in the following tables are weighted.

4.4 Measures

Five dimensions are central in this research: mobility, positions in the social space, mobility processes, conjugal conflict, and conjugal quality.

4.4.1 Types of mobility

Three recurring forms of job-related spatial mobility were considered. The first one is composed of the daily long-distance commuters, defined by a trip to the workplace of at least 2 hours for travelling back and forth at least three times a week. The second category includes all forms of commuting that include staying away overnight (at least 60 nights a year). This category is relatively heterogeneous, because it includes people who hold jobs which require frequent and often irregular business trips (representatives, flight crews, international truck drivers, and so on), seasonal workers, and weekly commuters with a second residence near the workplace. Finally, the third type refers to people in long-distance relationships. These couples do not have a common household due to job-related reasons. Both partners maintain an apartment of their own, characterized by a travelling duration between them of at least 1 hour. Fifteen percent of men and five percent of women from the representative sample are mobile in one of these forms; 36% of men and 29% of women were in the past. For both genders, the bigger mobility category is the daily long-distance commuters (5%), followed by the overnighters (4%), and the long-distance relationships (1%), whereas 0.5% combine two mobility forms. The percentages are similar across the three national contexts.

4.4.2 Mobility processes

The process of becoming mobile was measured for mobile people only. We focused on two dimensions of this process (Widmer et al. 2010). The first dimension includes the particular circumstances under which the decision of becoming mobile was made. Five indicators were used: the encouragements and discouragements from the close network, the degrees of freedom and difficulty of the decision making, and the respondent's opinion about whether the same decision would be made again today. The second dimension refers to the current perception of the practised mobility form. Three indicators were used here: the perceptions of the mobile individuals themselves, on a scale going from "something good and positive" to "something problematic and negative", the perceptions of their close relatives and friends on the same scale, and finally their opinion about how they think of their mobility: "as an opportunity, a need, or a coercion".

4.4.3 Conjugal satisfaction and conjugal conflict

Conjugal satisfaction and conjugal conflict were measured with one indicator each. Respondents were asked how satisfied they were with their partnership. Possible answers were "very dissatisfied", "somewhat dissatisfied", "somewhat satisfied", and "very satisfied". In order to have a dichotomous variable, the first three modalities were grouped together, distinguishing between very satisfied people and others. Sixty-two percent of men and 59% of women were very satisfied with their partnership. For conjugal problems, respondents had to indicate how often they felt stressed because of conflicts with their partner in the past 3 months. Responses were "never", "seldom", "sometimes", "often", and "very often". We distinguished between people having conflicts sometimes or

more often than others. Twenty-two percent of men and 25% of women mentioned some conjugal conflicts.[17]

4.5 Results

We first made a preliminary analysis crossing mobility types with conjugal satisfaction and conjugal conflicts through bivariate statistics. We then constructed eight types of positions in the social space and four types of processes of becoming mobile, including mobility of both partners. We next investigated the impact of the positions in the social space and the processes of becoming mobile on conjugal quality and conjugal conflict using several logistic regression models.

4.5.1 Mobility types and positions in the social space

In order to measure the impact of various forms of recurring mobility on conjugal satisfaction and conjugal conflict, bivariate analyses were run (Table 1). Multi-mobiles are defined as people who are mobile in more than one of the three forms of current mobility.

Table 1

Conjugal satisfaction and conjugal conflict by mobility types (in %)

	Long-dist. commuter	Overnigh -ter	Long-dist. relationship	Multi-mobile	Non-mobile	Total	Cramer's V
Conjugal satisfaction							.029
Else	36	38	50	40	40	40	
High satisfaction	64	62	50	60	60	60	
Total (N)	100 (118)	100 (79)	100 (18)	100 (10)	100 (1955)	100 (2180)	
Conjugal conflict							.015
Never or seldom	77	78	82	80	77	77	
Sometimes or more	23	22	18	20	23	23	
Total (N)	100 (120)	100 (79)	100 (17)	100 (10)	100 (1954)	100 (2180)	

* $p < .05$ ** $p < .01$

Source: Job Mobilities and Family Lives 2007, weighted. The weight correction was used to create equal national sample sizes and adjust for response, household size, and oversampling of mobile people biases.

The analyses revealed that mobility types had no effect on conjugal satisfaction and conjugal conflicts. Only individuals in long-distance relationships (unweighted n=60) were somewhat less likely to be very satisfied with their partnership and had less frequent conflicts compared with other categories of mobile people and non-mobile people.

[17] The satisfaction rate was strangely much lower in France compared with Germany and Switzerland (51% compared to 66% and 62%, respectively). Similarly, the proportion of conflict is higher (30% compared to 20% for the two other countries).

As mobility forms were not significantly different from each other in terms of their associations with conjugal satisfaction and conjugal conflict, we aggregated the three mobility types in a unique category of currently mobile people in order to gain statistical power in multivariate analyses. Moreover, because mobility practice is strongly interlinked with the social embeddedness of individuals (sex, family life-course, level of education and income, residential context), we constructed a typology of positions in the social space, including the mobility of the respondent and that of the partner. The positions were then used as predictors of conjugal quality in a statistical model, instead of successive single variables, characterised by a strong collinearity and confounding effects. In this perspective, we considered the method of cluster analysis.

Cluster analysis makes it possible to go beyond specific dimensions and to find holistic configurations of variables in interaction (Everitt 1993 ; Lebart et al. 1997). Rather than describing each case by a single variable at a time, it builds types that show how socio-demographic variables interact with each other in specific types of social positions. Note that the interpretation of clusters is based on the comparison of scores across clusters (see Table 2). We used a principal component analysis followed by a hierarchical cluster analysis with the Ward's method and squared Euclidean distances on factor scores[18] drawn from the mobility practice of both partners and socio-demographic variables. For all variables to have equal weights in the factor analysis irrespective of their number of response categories, we standardized them by dividing them by their maximum value in order to obtain scores ranging from 0 to 1. A series of solutions was examined, and the final eight-category choice was made on the basis of empirical criteria for purposes of clarity, parsimony, and homogeneity and because of the representation of all the main dimensions underlined by the factor analysis in the eight groups. Profiles of final groupings are presented in Table 2.

[18] The factor scores were weighted by the eigenvalue of each factor.

Table 2

Types of positions in the social space (means)

	Non-mobile men living with partner & children low resources	Non-mobile men living with partner high resources	Non-mobile women living with partner & children low resources	Non-mobile women living with partner & children high resources	Persons living without partner without children	Mobile persons living without mobile partner, without children high resources	Mobile men living with partner	Women living with mobile partner & children high resources		
	I	II	III	IV	V	VI	VII	VIII	Tot	Anova
Size of Cluster (%)	22	20	27	11	8	1	6	5	100	
N	353	322	420	172	133	19	92	80	1591	
Socio-demographic characteristics										
Sex (Male)	.97	.93	.00	.03	.68	.47	.96	.28	.54	790.05**
Liv. with partner	1.00	1.00	.99	1.00	.38	.00	1.00	.98	.93	389.21**
Liv. with children	.53	.32	.54	.59	.08	.11	.37	.49	.44	22.50**
Education	.36	.78	.41	.80	.57	.69	.57	.71	.56	118.70**
Partner's education	.14	.65	.10	.85	.39	.53	.34	.61	.37	140.43**
Household income	.22	.60	.20	.61	.16	.15	.49	.64	.37	81.80**
Municipality size	.13	.41	.19	.24	.60	.52	.18	.19	.26	44.67**
Mobility										
Mobility	.00	.00	.00	.00	.20	1.00	.96	.39	.10	535.59**
Partner's mobility	.00	.00	.08	.00	.15	1.00	.04	.81	.09	230.18**

* $p < .05$ ** $p < .01$

Source: Job Mobilities and Family Lives 2007, weighted. The weight correction was used to create equal national sample sizes and adjust for response, household size, and oversampling of mobile people biases.

The first type was composed of non-mobile men living with non-mobile partners and children (22% of the sample). Both partners had low credentials and incomes and lived in very small municipalities. Individuals from the second group (20% of the sample) were again non-mobile men living with non-mobile partners, but in this case, they were less likely to live with children and had high levels of income and education. Moreover, their places of residence were located in quite large municipalities. Individuals from cluster three (27% of the sample) were non-mobile women living with non-mobile partners and children in small municipalities. Their educations, as well as that of their partners, were low, like their household incomes. Women from the fourth type (11% of the sample) had the same characteristics as the previous group, except for education and income levels, which were high for both partners. Quite distinctly, individuals from the fifth cluster (8% of the sample) were mainly characterized by the fact of living alone. They were more likely young people in a pre-child situation with a low household income and a residence in a big city. They were more often male and some of them were mobile and/or had mobile partners. As in the previous type, individuals from cluster six (1% of the sample), were more likely young people living alone, but in this case both partners were mobile. They presented a high level of education and lived more often in large municipalities. This social position concerned only a very small proportion of the weighted sample. These couples were nevertheless kept as a specific category, because of their particular bi-mobile living arrangement. The seventh group (6% of the sample) was composed of mobile men living with non-mobile partners in small municipalities. Finally, women from the last category (5% of the sample) were mainly defined by the mobility of their partners. In some cases, they were themselves mobile. They lived with partners and children and had high levels of education and income. Their residences were located in small municipalities.

Cluster analysis revealed eight contrasted positions in the social space. There were great variations among those types in terms of education and income levels, gender, and living and mobility arrangements. In particular, there was no specific type of mobile women living with non-mobile partners. Mobile women were either living alone in a pre-child situation (clusters five and six) or living with a mobile partner and children (cluster eight).

The frequency distribution of the eight positions was similar across countries (table not reported). Germany was somewhat distinct with an over-representation of individuals living alone and lower proportions of non-mobile men and women living with non-mobile partners and children. Furthermore, men in France experienced less mobility with non-mobile partners, and women in Switzerland were less likely to live with mobile partners and children.

4.5.2 The processes of becoming mobile

The same clustering procedure as for the positions in the social space was followed to build types of processes. From the mobile subsample, a principal component analysis was first used, followed by a hierarchical cluster analysis with the Ward's method and squared Euclidean distances on factor scores[19] drawn from all variables regarding the decision to become mobile and the

[19] The factor scores were weighted by the eigenvalue of each factor.

perception of the practiced mobility form, presented previously. For all variables to have equal weights in the factor analysis irrespective of their number of response categories, we standardized them by dividing them by their maximum value in order to obtain scores ranging from 0 to 1. Four clusters were chosen because of a clear shift of the decrease in the inter-cluster distances identified by the dendrogram between four and five groups and because of the representation of all the main dimensions underlined by the factor analysis in the four groups. Two oppositions which were underlined by the two main axes of the factor analysis structured the cluster. Profiles of final groupings are presented in Table 3.

Table 3

Types of processes (means)

	Structurally enforced negative process	Network-enforced negative process	Network-enforced positive process	Opportunity driven process		
	I	II	III	IV	Total	Anova
Size of Cluster (%)	48	17	12	23	100	
N	412	147	100	199	858	
Decision to become mobile						
Encouragements	.08	.60	.94	.50	.37	178.75**
Discouragements	.02	.43	.86	.07	.20	276.58**
Perceived decision: easy	.82	.40	.52	.91	.74	111.23**
Perceived decision: free	.85	.72	.89	.96	.86	23.24**
Same decision again today	.83	.61	.82	.94	.82	44.90**
Perception of mobility						
Perception from the others: positive	.36	.33	.68	.81	.49	134.32**
Self-perception: positive	.56	.43	.76	.93	.65	108.62**
Self-thinking: opportunity	.53	.43	.79	.88	.62	110.75**

* $p < .05$ ** $p < .01$

Source: Job Mobilities and Family Lives 2007, weighted. The weight-correction was used to create similar national sample size and adjust for response and household size biases.

In the type *structurally-enforced negative process* (53% of the sample of mobile respondents), the decision to become mobile was made by individuals without reference to their relational contexts. Network members had neither encouraged nor discouraged individuals to become mobile. The structural components of the social situation were rather viewed as the main factors (lack of job opportunities in the area of residence, lack of affordable accommodation near the workplace, etc.). Mobility was experienced for the most part as negative and compulsory: individuals would have liked to stop it if they could have done so.

Individuals featuring a *network-enforced negative process* (18% of the sample) were also extremely critical about their mobility practice, which they experienced as a need or a constraint. In their case, however, the decision was made collectively, with family and network members strongly intervening in the

decision of individuals to become mobile. Although network members perceived the mobility of respondents mainly negatively, they intervened in contradicting ways, some promoting mobility and some being critical of it. Therefore, the decision to become mobile was difficult to make and individuals did not know at the time of the interview if they would make it again. As in the previous type, individuals experienced mobility as a coercion and were not motivated to continue it if not forced by external circumstances or by network members. One illustrative case of this process is an individual who decided to commute against his or her will because the partner refused to move.

Quite distinctly, individuals of cluster 3 (8% of the subsample) considered mobility as an opportunity rather than as a constraint and wished to continue it in the future. As in cluster 2, the decision to become mobile was made after network members voiced their opinions, either negatively or positively. Therefore, the decision was again not easy to make. The outcome of mobility, however, was extremely positive. Therefore, we call this type *network-enforced positive process*. One illustrative case of this process is an individual in a dual-career relationship who decided to take a second residence near the job location after difficult negotiations because it enables both partners to combine two different workplaces.

Finally, cluster four (21% of the subsample of mobile individuals) features a decisional process in which individuals got strong support from their network members and no negative opinion about mobility. The decision was rather easy to make and led to positive outcomes which enticed individuals to remain mobile in the future. Therefore, one may refer to this type of process as an *opportunity-driven process*.

Overall, the cluster analysis revealed four contrasted types of decisions leading to mobility. Three processes of the four implied a pressure from the environment, either structural or relational, to become mobile.

The four process types were quite similarly distributed among the three countries of residence (table not reported). Mobile people from Germany showed, however, some dissimilarities, as they more often experienced structurally and network-enforced negative processes, whereas they were half as likely to have experienced an opportunity-driven process compared with mobile people in the two other countries (15% as compared to 27% in France and 30% in Switzerland).

4.5.3 Accounting for conjugal quality

We next examined if the positions in the social space and the processes of becoming mobile predicted conjugal quality. Table 4 presents the results of a set of logistic regressions with conjugal satisfaction and conjugal conflict regressed on the positions in the social space and the processes leading to mobility, separately in the three national contexts. Two models were tested. In model A, the impact of positions was estimated, while in model B, the processes were added. In the latter model, the regression was applied on the mobile subsample only, so that the four positions characterized by non-mobility were not included in the analysis. Mobile men living with non-mobile partners and the network-enforced negative process were used as the reference categories.

Results from model A showed that the positions in the social space predicted conjugal satisfaction and conjugal conflict in none of the three countries. In other terms, controlling for respondents' social embeddedness (life-course, sex, education, etc.), spatially mobile people do not differ from non-mobile ones in their conjugal satisfaction and their conjugal conflict. With the inclusion of processes (model B), it appeared that bi-mobile couples not living together in Germany and mobile women living with mobile partners and children in France were less satisfied compared with mobile men living with non-mobile partners, who constituted the reference category. But the most significant results concerned the impact of mobility processes. The analyses confirmed that the network-enforced negative process was associated with lower conjugal satisfaction and more frequent conjugal conflicts in Germany and in Switzerland, irrespective of the individuals' position in the social space. In Switzerland, mobile people who experienced one of the three other processes featured higher conjugal quality than people who experienced a network-enforced negative process. In Germany, people who experienced an opportunity-driven or a structurally enforced negative process presented higher conjugal satisfaction and fewer conjugal conflicts than others. In these two countries then, it was not the fact of being mobile that influenced conjugal quality but the process by which individuals entered a mobile way of life. This situation was different in France, where no significant effect of mobility processes on conjugal satisfaction was observed. In this country, only mobile people who experienced a structurally enforced negative process had a lower chance of feeling stressed because of conflicts with their partners.

Table 4

Logistic regressions of conjugal satisfaction and conjugal conflict on position and process types (Odds Ratios)

	Conjugal satisfaction A	Conjugal satisfaction B	Conjugal conflict A	Conjugal conflict B
France				
Position types in the social space				
Non-mobile men living with partner & children low resources	1.25		1.08	
Non-mobile men living with partner high resources	1.01		1.50	
Non-mobile women living with partner & children low resources	1.22		2.16	
Non-mobile women living with partner & children high resources	1.01		1.49	
Persons living without partner without children	.61	1.25	1.39	1.66
Mobile persons living without mobile partner without children high resources	.75	.59	1.37	1.40
Mobile men living with partner	-	-	-	-
Women living with mobile partner & children high resources	1.18	.48*	2.77	1.61
Process types of becoming mobile				
Structurally enforced negative		1.29		.26**
Network-enforced negative	-	-	-	-
Network-enforced positive		2.36		.62
Opportunity driven		1.79		.49
Fit of the model (χ^2)	3.50	13.00*	11.43	12.54*
Degrees of freedom (D*f*)	7	6	7	6
N	618	239	619	239

	Conjugal satisfaction A	Conjugal satisfaction B	Conjugal conflict A	Conjugal conflict B
Germany				
Position types in the social space				
Non-mobile men living with partner & children low resources	.92		.96	
Non-mobile men living with partner high resources	.88		1.14	
Non-mobile women living with partner & children low resources	1.08		1.14	
Non-mobile women living with partner & children high resources	.79		1.56	
Persons living without partner without children	.82	1.19	1.39	.95
Mobile persons living without mobile partner without children high resources	.69	.38*	1.14	2.00
Mobile men living with partner	-	-	-	-
Women living with mobile partner & children high resources	1.24	1.18	.65	.80
Process types of becoming mobile				
Structurally enforced negative		2.15*		.32**
Network-enforced negative	-	-	-	-
Network-enforced positive		1.25		.79
Opportunity driven		6.89**		.20*
Fit of the model (χ^2)	1.71	15.21**	2.57	10.75
Degrees of freedom (D*f)*	7	6	7	6
N	463	231	464	231

	Conjugal satisfaction A	Conjugal satisfaction B	Conjugal conflict A	Conjugal conflict B
Switzerland				
Position types in the social space				
Non-mobile men living with partner & children low resources	.73		.46	
Non-mobile men living with partner high resources	1.11		.96	
Non-mobile women living with partner & children low resources	.90		.54	
Non-mobile women living with partner & children high resources	.67		.77	
Persons living without partner without children	1.35	1.84	.58	.50
Mobile persons living without mobile partner without children high resources	1.25	1.27	.94	1.56
Mobile men living with partner	-	-	-	-
Women living with mobile partner & children high resources	1.17	2.19	1.01	.29
Process types of becoming mobile				
Structurally enforced negative		3.08**		.22**
Network-enforced negative	-	-	-	-
Network-enforced positive		4.27*		.13**
Opportunity driven		4.42**		.28**
Fit of the model (χ^2)	5.28	13.31*	7.77	16.83**
Degrees of freedom (D*f)*	7	6	7	6
N	506	192	507	193

* $p < .05$ ** $p < .01$

Source: Job Mobilities and Family Lives 2007, weighted. In model A, the weight correction was used to create similar national sample sizes and adjust for response, household size, and oversampling of mobile people biases. In model B, the weight correction created similar national sample sizes and adjusted for response and household size biases.

The odds ratios measure the strength of the association between the conjugal quality (dependent variable) and the position and process types (independent variable). When the coeffcient is below one, the association is negative. When it is above one, the association is positive.

4.6 Discussion

Based on the literature, we hypothesized that job mobility had a negative impact on conjugal quality because it promoted higher individual autonomy and lower network density, which were shown to be predictors of conjugal dissatisfaction in various studies (see e.g. Widmer et al. 2006, 2009). The empirical results showed that this hypothesis should be rejected on the basis of the JobMob data. We first considered job mobility per se by differentiating the impact of various mobility arrangements that were stressed by former research. We found that none of the mobility types were associated with lower conjugal satisfaction or more frequent conjugal conflicts than the non-mobile situations. In order to take into account the correlations existing between mobility and other dimensions of individual positions in the social space, we constructed a typology of the social space based on cluster analysis. This enabled us to capture the complex set of interacting variables characterizing the social embeddedness of job mobility in contemporary Western societies better than by using a long set of supposedly independent variables. This second analysis confirmed what was found by the use of the single indicator of job mobility: Job mobility had no impact on conjugal quality in all three countries considered in this analysis.

This unexpected result leads us to propose several explanations. First, a large share of job-mobile individuals experienced their mobility before becoming parents, in a life-course stage in which they were either single or in a relatively new partnership. Because job mobility was associated with social mobility occurring in earlier stages of the professional career (Viry et al. 2008), it did not interact, in most cases, with the decrease of conjugal satisfaction usually associated with the transition to parenthood (Belsky/Pensky 1988; Cowan/Cowan 1992). Therefore, conjugal satisfaction may not have been strongly decreased by job mobility because couples that experienced it were not subject to the burdens associated with parenthood. This argument certainly does not explain the whole matter, as mobile individuals with children in the JobMob sample were not different than non-mobile parents. But let us again stress that they were relatively few and that they may have developed strategies to deal with the drawbacks of their situations.

A second explanation holds in the large proportion of job-mobile individuals having placed personal autonomy in the foreground, although this autonomy was not directly due to mobility practice (Schneider/Meil 2008). We have indeed good reason to think that a large part of mobile people did not become more independent in the situation of mobility because those couples had already developed individual autonomy. This was probably particularly the case for people who opted for weekend commuting and long-distance relationships. In these couples, in which both partners usually work, career disadvantages could be avoided (Limmer 2005). Because their independence was important, these persons probably considered their mobility less of a burden for their relationship. Again, this interpretation does not explain the whole matter, as mobile individuals emphasising conjugal closeness and time spent together in the JobMob sample were not different from the equivalent non-mobile group. These more cohesive couples may have chosen to commute long distances daily as one possible strategy to limit the burdens of mobility (Limmer 2005). In this way,

they could still find a balance between occupational absence and family cohesion by choosing the form of mobility that is most adapted to their degree of autonomy.

One may likewise think that job-mobile people developed other strategies to adapt themselves and their families to their mobile way of life so that their couple cohesion, their social networks, and hereby the quality of their conjugal interactions were not markedly affected by mobility. The abilities of partners to communicate at a distance or the concentration on leisure activities with the family are some examples of such strategies. By a selection effect, one may thus expect that many couples who did not adapt themselves to the constraints caused by mobility stopped either their mobile living arrangement or their relationship. We can additionally think that the effects of the different factors previously highlighted as potentially influencing conjugal quality counterbalanced each other in the specific mobility arrangements of families. Let us take the case of long-distance relationships. This mobility form takes both partners' autonomy to an extreme. But at the same time, empirical research showed that this living arrangement was associated with the maintenance of both partners' dense personal networks (Schneider et al. 2002), which could partly compensate for the effect of personal autonomy on conjugal quality.

Finally, another explanation holds in the importance of the ways in which mobility has come into existence in specific families. From a life-course perspective, we hypothesized that various processes by which individuals become mobile coexisted, some stemming from strategic decisions made by actors who perceived themselves as having a high level of self-mastery, others imposed on individuals by the structural constraints of the environment (lack of jobs, lack of affordable accommodation near the workplace) or by their network members (necessity of financially supporting the partner or the family, to abandon the idea of moving, and to commute to preserve the integration of the family within its social environment). We expected that these pathways to mobility, in turn, may have had consequences on conjugal quality, because individuals and their partners may have developed frustrations and misunderstandings if the process of becoming mobile could not be attributed to shared cultural meaning among spouses (Berger/Kellner 1964).

This expectation was actually confirmed by the data. In all three countries considered in this paper, the process of becoming mobile had an impact on conjugal quality, although in quite distinct ways. Interestingly, structurally enforced negative mobility was associated with greater conjugal quality than network-enforced negative mobility. In other words, individuals who perceived their experience of mobility as forced by the job market were actually better off in their conjugal interactions than those whose families and networks strongly intervened in the decision making. The impact of this process was rather strong and could not be called into question as it showed up in each of the three countries. Individuals mobile for structural reasons may have been able to deal with the burdens of mobility by attributing the negative consequences of mobility to the context rather than to themselves or to their partners. They may have also experienced mobility as a temporary living arrangement rather than as a permanent way of life. This may have helped them and their partners make sense of the current situation.

In Switzerland, network-enforced positive mobility was additionally clearly associated with higher conjugal satisfaction and less frequent conflict. That is, individuals who experienced with the partner and family a difficult decision-making process regarding mobility but who perceived their current mobility arrangement positively showed higher conjugal quality. In this situation, mobility was probably seen as the best possible compromise between work and family life (Vincent et al. forthcoming), and taking into account the interests of both partners, this reflected positively in the couple dynamics. Furthermore, various studies have shown that it was more the subjective feeling of equity in both partners' family investment than the real investment that influenced conjugal satisfaction (Kellerhals et al. 1988; Widmer et al. 2003). In this regard, mobile individuals for whom the decision was made collectively may have seen their job mobility as an investment for family per se (financial support), contributing to conjugal quality.

In Germany and Switzerland, opportunity-driven mobility was also clearly associated with higher conjugal satisfaction and lower conflict. Because mobility was the consequence of an optimizing calculus made by persons who had several options available, it was probably interpreted as a fruitful step in a career of professional development. In both countries, the careers of elites include spatial mobility, either within the country, from small towns to university areas and business places, or internationally within Europe or to the United States. The strong impediment to having various professional experiences beyond the place in which one grew up may have led several individuals to be mobile in the early stages of their careers, not because they did not find jobs in their birthplaces, but because they found better ones (or more promising ones in the long run of their careers) if they accepted being job-mobile. Occupational mobility as a contribution to self-development goes hand in hand with conjugal quality, which also contributes to the emphasis on the life course servicing the self in an individualistic twist. This is especially the case for individuals who are temporarily or more permanently childless, who significantly emphasise autonomy more than others in their conjugal interactions (Widmer et al. 2003). Overall, Germany and Switzerland presented similar results on the impact of mobility processes on conjugal quality. France was a special case, as no significant effect of opportunity-driven mobility could be found in the country. One may interpret that as a consequence of the more gendered division of labour in Germany and Switzerland. Indeed, the significant association between opportunity-driven mobility and high conjugal quality in these two national contexts concerned mainly men living with children (table not reported). The strong occupational investment of these fathers may have been more positively related to couple quality in countries characterized by family policies and social norms favouring an unequal division of labour, with women still carrying the main responsibility for childcare and participating in the job market far less.

The study presented here discusses some dimensions associated with job mobility effects on partnership. It has, nevertheless, several limitations. First, the JobMob data provided only limited measures of conjugal quality (two indicators). Additional indicators, such as various conjugal problems, conjugal instability, or coping strategies, would be necessary for a more in-depth examination of the dynamics of conjugal interactions. Second, there are no specific measures of

conjugal cohesion, conjugal network density and network symmetry. This would have allowed to test the mediating effect of these variables on the relationship between job mobility and conjugal quality. In addition, the necessity of dealing with various life situations regarding mobility and living arrangements creates some categories that are represented by only very few cases, limiting the statistical power in multivariate analyses. Added to this, because of cross-sectional data, we cannot exclude that questions about the decision of becoming mobile made in the past may be post-hoc reconstructions that mobile individuals developed from family situations experienced at the time of the interview. Finally, one can wonder about the reliability of international comparisons in this kind of survey, because of the variability of some results across countries. The conjugal dissatisfaction is indeed strangely higher in France compared with the situation in the two other countries. Do we then measure the same concept across countries?

Finally, there are several open issues that should be dealt with by further empirical inquiries. First, the analyses are synchronic for the most part. Indeed, mobility forms and conjugal quality were measured at a single point in time. A better understanding of the lack of effect of structural positions certainly goes through a longitudinal panel survey, which would enable us to consider how previously non-mobile couples adapt their relationships to the demands of mobility. Longitudinal data would also allow to consider the possible long-term effects of past mobility practice on conjugal quality. Second, it would be helpful to produce a qualitative understanding of the specific strategies developed by some categories of couples to deal with their mobility.

These analysis dimensions must still be scrupulously studied, but our findings are nevertheless solid. Recurring forms of job-related spatial mobility had no effect on conjugal quality in all three countries considered in this analysis. Conjugal quality rather depended on the process by which the individual became mobile. Lower quality of conjugal relations concerned mobile people who experienced decisions leading to mobility both negatively and collectively.

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Chapter 5

Does geographical distance from the father matter in post-divorce families?

Effects of the non-resident father's residential proximity on co-parenting and the child's well-being

5.1 Abstract

Using randomly selected data on 144 mothers of school aged children from stepfamilies, this article explores how geographical distance and frequency of contact between non-resident fathers and children and the way the mother promotes a positive image of the father are linked to children's emotional and behavioral outcomes. Three issues will be addressed: firstly, do father-child residential proximity and frequency of contact influence the degree to which the mother fosters a positive image of the father and positive interactions within the parents-child triad in the child's presence? Secondly, how important is this cohesive co-parenting for mediating the effects of father-child residential proximity on the child's emotional and behavioral outcomes? Thirdly, do the proposed causal models vary according to the father's level of education? Results showed that children whose highly-educated fathers lived nearby were more likely to benefit from greater co-parenting behaviors by the mother, which in turn was associated with lower risks of conduct and hyperactivity problems. This effect was interpreted as the result of a strategy from parents with highly-educated backgrounds aimed at remaining geographically close to facilitate the non-resident father involvement and (co)parenting practices. Children who had frequent contacts with their less-educated fathers were more likely to benefit from greater co-parenting behaviors by the mother, but co-parenting had only a minor impact on the child's difficulties.

Keywords: non-resident fathers, stepfamilies, post-divorce families, child's well-being, geographical distance, residential proximity, co-parenting, parent-to-child communication, mediating effect, SDQ.

5.2 Introduction

Norms and family law regarding the role of fathers in modern post-divorce families have changed over the past decades in Western societies. Co-parental responsibility and collaboration between the two ex-partners are emphasized, with the objective to encourage or enable non-resident parents (usually fathers) to play a more central role in their children's lives. Greater commitment by non-resident fathers is mainly advocated by policymakers to ensure the child's best interests. Consequently, geographical distance between the parents is considered a risk to the child's development because distance can potentially

hamper the non-resident father's involvement in the relationship with the child and mother. Nevertheless, little evidence exists regarding the influence of great distances between parental homes on co-parenting and children's outcomes. In this article we aim to fill this gap by exploring how residential distance between father and child, frequency of contact, cohesive co-parenting and the child's emotional and behavioral difficulties are linked. *Cohesive co-parenting* is defined here as the degree to which the mother promotes a positive image of the father and positive interactions within the parents-child triad in the child's presence. We propose a causal model that estimates the relationships between all of these variables, all the while controlling for the effects of the parents' social characteristics.

To investigate this issue, we used data coming from interviews conducted with 144 mothers in stepfamilies living in the region of Geneva, Switzerland (Widmer and Favez, 2011). In this country characterized by a fairly gendered division of labor, women are still largely responsible for child-rearing. Children are mainly seen as a private concern, to be cared for primarily by their parents or close relatives (Fux, 2008). The growing number of working women is not seen as a sign of modernization, but rather as the emergence of a more flexible organization of family life, which has nonetheless kept its gendered-structured, private sphere specificities (Kellerhals and Widmer, 2005). Couples in Switzerland usually get married when they have children, and women – especially mothers – tend to have part-time employment activities much more so than do men. In case of divorce or separation, the custody of children falls first to the mother. Joint legal custody is possible, however, when both parents expressly request it. Moreover, since 2000, joint parental authority has actually been facilitated by the Swiss law on divorce.

5.3 The effects of contact with the non-resident father and co-parenting on the child's well-being

A substantial body of research (largely from the U.S.) has shown that children in stepfamilies, on average, have lower cognitive and behavioral outcomes, compared with children who have been raised in two biological parent families (see for ex. Amato, 1994; Coleman et al. 2000; Dunn, 2002). Several reasons were emphasized, including the emotional distress of single parents (mainly mothers), economic difficulties, the child's perception of abandonment and pre-/post-divorce parental conflict. In a biosocial perspective, some studies likewise argue that a stepfather cannot replace a biological father, as biological relationships are more salient and rewarding, and also because biological fathers are more involved with their children (Daly and Wilson, 1995; Flinn, 1988; Popenoe, 1994).

Therefore, the prevailing view is that maintaining contact with the non-resident father is salutary for a child's post-divorce adjustment. It is thought that children who still have contact with their biological father are able to benefit from two sets of authority figures – and thus two sources of love, resources and assistance –, which may allow them to find additional support in their hardships and facilitate their development. Such views, however, are only partially legitimated by research: paternal involvement simply measured by frequency of contact

produced mixed findings on child well-being. In fact, a substantial body of research (largely from the U.S.) does not support the idea that greater frequency of contact with the non-resident father is automatically beneficial to children. Several meta-analyses (Amato and Rezac, 1994; Amato and Gilbreth, 1999; Lye, 1999) show contradictory findings; some studies report a positive association while others do not, or even a negative one. These authors conclude that a number of other variables, including the quality of father-child relationship, may moderate the association between contact and the child's well-being. Moreover, the contact frequency indicator may be not precise enough, as low frequency of contact is sometimes compensated for by longer visits, particularly when father and child live far apart (Seltzer, 1991). Finally, the direction of causality in the association between frequency of contact and a child's well-being remains unclear. Dunn et al.'s (2004) longitudinal study found some evidence that non-resident fathers were driven to have more frequent contact with their children as a result of the positive, affectionate relationship between them, rather than the contrary (i.e. regular contact influencing the positive nature of the relationship).

On the whole, research suggests that frequency of contact has an indirect effect; fathers who see their children regularly are likely to have better-quality relationships with the child, who in turn are likely to have lower levels of emotional and behavioral difficulties (see, for example, Gilmore, 2006). Various studies emphasize the positive effects of the quality and nature of non-resident parent-child relationships on the child's outcome, more so than the frequency of contact (see especially the meta-analysis of Whiteside and Becker, 2000; Smith et al., 2001). For instance, some research finds that the involvement of non-resident fathers is only beneficial when they have an authoritative parenting style characterized by a high level of support (responsiveness, encouragement, instruction and everyday assistance) and non-coercive control (rule formulation and discipline) (Amato and Gilbreth, 1999; Hetherington et al., 1998). Feelings of closeness between the children and non-resident father likewise had some influence, though slight, on the child's outcome (Amato and Gilbreth, 1999).

As a matter of course, frequency of contact with the father is closely related to the parental residential arrangement for the child. Research on the impact of shared residential arrangements, however, establishes no clear evidence that children in joint residential custody situations adjusted better than children in single-mother residences following a divorce. The literature suggests instead that a child's residential arrangement has very little impact on his or her well-being. This finding, however, must be viewed with caution, due to the small sample size of most studies (Pearson and Thoennes, 1990; Johnston et al., 1991; Buchanan et al., 1996). Buchanan et al. (1996) showed that joint custody children can feel caught between their parents when family conflict arises, leading to increased levels of child depression and anxiety. Interparental cooperation and limited conflict between ex-partners seemed better indicators of children's well-being than did frequent contact with both parents.

The quality of the parents' relationship and interparental conflict appeared particularly influential when it came to the quality of the contact between the non-resident father and his child (Amato and Rezac, 1994; Dunn, 2004) and the children's well-being (Amato and Rezac, 1994; Buchanan and Heiges, 2001;

Harold and Murch, 2005; Teubert and Pinquart, 2010; Whiteside and Becker, 2000). Cooperation, support and communication between ex-partners as well as acceptance of each parent's role were found to be positively associated with child-father frequency of contact and the quality of this relationship (Dunn, 2004). Amato and Rezac's study (1994) in particular demonstrated that contact between a boy and his non-resident father was negatively associated with behavioral problems when parental conflict was low, and positively associated with behavior problems when parental conflict was high. The tendency was similar for girls, albeit not significant. These findings draw attention to the important role the resident mother plays in either facilitating or, conversely, hindering the amount and quality of contact between the child and non-resident father.

Direct parent-to-child communications about the child's other parent or the integrity of the family may be also related to the social and psychological adjustment of children in divorced families. Empirical study on this co-parenting dimension is a relatively new research trend, compared to largely-overt (public) manifestations of co-parenting like parental cooperation, support, childrearing agreements and conflict (Feinberg, 2003; McHale, 1997). However, several studies have shown that when parents speak disparagingly of the other parent in front of the child, children are more likely to display difficulties in their own conduct and, as some studies show, manifest higher symptoms of anxiety and depression (Buchanan et al., 1991; Maccoby et al., 1990; McHale and Rasmusen, 1998; Whiteside and Becker, 2000).

5.4 Cultural resources: two models of post-divorce families?

Several studies in the U.S. showed that interaction with the child and the mother from post-divorce family is more frequent among highly-educated fathers than among fathers with little education (Bradshaw et al., 1999, Cooksey and Craig, 1998; Rettig et al., 1999). Fathers with higher educational attainment have greater resources (material, economic, cultural, relational) than low-educated fathers, so that they are better able to develop a high-quality relationship with the mother and the child and bring better outcomes of father's involvement with the latter (Rettig et al., 1999). In particular, post-divorce families where the non-custodial father is able to contribute economically to the other household have higher chances to initiate a positive and cooperative relationships between the two parents (Seltzer, 1991). Divorced fathers with high cultural backgrounds have likewise better communication skills that facilitate effective discussions with former spouses to resolve conflict and to make decisions concerning child-rearing and education.

In their longitudinal study of divorced families in France, Le Gall (1996) and Martin (1997) highlighted two contrasting post-divorce family scenarios. In the first – overrepresented among working-class families – divorce is contentious and leads quickly to a clear break between the mother and children on one side, and the father on the other. The failure of the couple is understood as the result of mistaken union. In case of remarriage, a substitution logic prevails, so that fathers are for the most part replaced in the relationship with their children by the

new partner (often described as a counter-example of the former partner). At the other end of the spectrum – more predominant in socially and economically advantaged families – divorce is less contentious and partners negotiate the terms of their separation. The divorce leads to a progressive restructuring of roles and relationships in a new family configuration that combines past and present family life, without desire to rebuild a traditional nuclear family. In this configuration, contact between the child and non-custodial parent remain relatively active, and the possible new partner of the custodial parent plays more a complementary role than a substitution role with regard to the child. In such cases, ex-partners often choose a place of residence that facilitates access to their child.

5.5 Research questions and causal model

5.5.1 Research questions

The first question addresses 1) the impact of the father's residential proximity to the child and 2) frequency of contact on the extent to which the mother promotes a positive image of the father and positive interactions within the parents-child triad in the child's presence (called *cohesive co-parenting* here). We expect to find greater cohesive co-parenting when the father lives near the child and has frequent contact with him or her than when the father lives far from the child and sees him or her less frequently. The father's proximity facilitates contact with the child and mother (Arditti and Bickley, 1996; Braver et al., 1993; Furstenberg et al., 1983; Seltzer, 1991; Smyth et al., 2001), payment of the child support (Seltzer, 1991) and is associated with greater willingness to be involved in the child's life than in instances where the distance is greater (Cooksey and Craig, 1998). Thus, greater residential proximity and frequency of contact between the non-resident father and child are expected to foster a sense of post-divorce family unity and cohesive co-parenting in spite of the conjugal separation.

The second question addresses the importance of cohesive co-parenting for mediating the effects of father-child residential proximity on the child's emotional and behavioral difficulties. We expect that a child will have fewer problems if the father lives nearby than if he lives further away, because residential proximity and frequent contact between the father and child lead to the mother speaking more favorably of the former and promoting positive interactions within the parents-child triad in the child's presence. Although research in this domain is still in its infancy, some pioneer works on young children in first-time families (McHale and Rasmusen, 1998; McHale et al., 2007) suggest that in families where parents promote a positive image of the family unit and the other parent – even in that parent's absence – children show more positive social and emotional development. By undermining parental discrepancy, loyalty conflicts and confusion of identity (Hancock, 1980; Emery, 1999), the effect of cohesive co-parenting is expected to mediate the relationship between residential proximity from the non-resident father and child's well-being.

The third question is whether the father's education has an impact on the effects between his residential proximity, frequency of contact with the child, cohesive co-parenting and the child's well-being. Based on the literature, we hypothesize

that residential proximity has a more positive direct effect on frequency of contact, mother's coparenting, and the child's outcome when the father is highly-educated. In such cases, the decision to stay close to the child likely results from a strategy aimed at remaining involved in the child's life, more so than it does for less educated individuals (Le Gall, 1996; Martin, 1997). Because of their higher resources and skills, fathers with higher educational attainment are likewise expected to be better able to develop a cooperative relationship with the mother and to influence positively on the child's well-being than less-educated fathers.

Other important variables may interact with the effect of father-child residential proximity and frequency of contact on the child's well-being. To begin, the non-residential father's time living *outside* of the family household may strongly influence the father-child relationship. Residential proximity and contact with the father tend to decrease over time as the time of separation increases (Furstenberg et al., 1983; Seltzer and Bianchi, 1988; Stephens, 1996). Thus, we included time effects in our analyses. The parents' current residential proximity may also be linked to the fact of one of the parents being born in a foreign country, which in turn can be associated with a disparate conception of parental roles from that of parents born in Switzerland. Information about fathers or mothers born outside Switzerland was then estimated. We also accounted for the age of both parents, which is strongly linked with the likelihood to move. Although custody arrangements proved to have very little impact on a child's well-being (Pearson and Thoennes, 1990; Johnston et al., 1991; Buchanan et al., 1996), it was nonetheless important to distinguish between cases of joint legal custody and those where the mother alone had custody, in order to distinguish between the effects of the father's proximity, frequency of contact and custody arrangements. Also, while fathers with children by a new partner may be less likely to maintain contact with a child from an earlier union (Bradshaw et al., 1999; Cooksey and Craig, 1998; Manning and Smock, 1999), those with two or more children with the ex-partner (Cooksey and Craig, 1998) and those with a former relationship of significantly-long duration tend, by contrast, to be *more* involved in the lives of their children than fathers of an only child and those who had had only short-term relationships respectively. Moreover, the literature suggests that the father's contact with the child and mother is more frequent among employed (Braver et al., 1993; Simpson et al., 2005), higher income fathers (Braver et al., 1993; Seltzer, 1991; Stephen et al, 1993; Rettig et al., 1999). These factors, as well as the employment status of the mother, were also taken into account in our model. Finally, studies by Cooksey and Craig's (1998) and Simpson et al.'s (1995) demonstrated that non-resident fathers were more likely to maintain frequent face-to-face contact with boys than with girls. Thus, we assessed whether the father's proximity and frequency of contact were equally important for boys and girls development by including the child's gender. We also estimated the child's age due to its importance with respect to post-divorce adjustment.

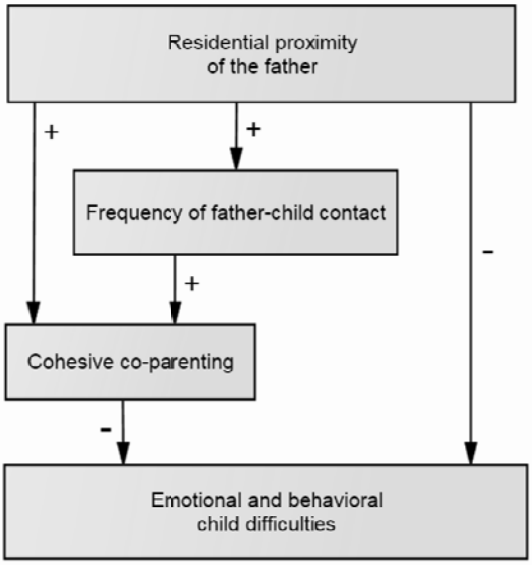
5.5.2 Causal model

Based on the literature review, we proposed testing a causal model to evaluate the effects between father-child residential proximity, frequency of contact, cohesive co-parenting and emotional/behavioral problems in children. This

model is depicted in Figure 1. Residential proximity of the non-resident father is assumed to have a direct effect on the child's difficulties and, at the same time, an indirect effect through cohesive co-parenting. Residential proximity was assumed to be directly linked to cohesive co-parenting and indirectly linked through frequency of contact. Based on research findings, frequency of contact was assumed to have no direct effect on child's difficulties. As we expected to find marked differences in the level of commitment of non-resident fathers depending on the family's cultural resources, we also tested the extent to which the postulated model was equal with regard to the father's education.

Figure 1

Causal model of the impact of residential proximity on the child's difficulties (direct effect and indirect effect through the frequency of contact and cohesive co-parenting)



5.6 Method

5.6.1 Data

The data came from the research project "Social capital and family processes as predictors of stepfamily outcomes" (StepOut), which was the first quantitative survey to compare the social capital of stepfamilies and first-time families in Switzerland (Widmer and Favez, 2011). The data were gathered between 2009 and 2010, when 300 mothers living in the Geneva area were randomly selected by a survey institute from the Swiss telephone directory and interviewed by researchers in their homes or at the university using a standardized questionnaire. Among respondents living in stepfamilies, six were eliminated because they did not know the whereabouts of their child's father at the time of

the interview. For the present study, the data were composed of a random sample of 144 mothers living with at least one biological child (aged between 5 and 14) from a former relationship on a regular basis and a stable partner (married, cohabiting or spending at least three nights a week at her home). The co-resident partner or respondent may have had other children in the interim, either with the current partner or another, living with them or elsewhere. When the mother had more than one child in the target population, the eldest child was identified as the "target" child for that family.

5.6.2 Measurements

Residential proximity. Switzerland is a small but densely populated country with a low mobility rate, where family members generally live at shorter distances from one another than they do in the USA or in larger Western European countries like France or Germany. We used the current residential zip code for the respondent and non-resident father, as reported by the respondent. The geographical distance (in kilometers) between parental homes was inferred with the help of routing software modeling the Swiss road network. Many fathers lived in the same neighborhood as their child, so that scores were skewly distributed (skewness=4.38) and not normally distributed (Shapiro-Wilk=.46; p<.01). Scholars have demonstrated that physical contact is still highly sensitive to even slight increases in distance, even in the age of high speed transportation and communication systems (Hampton and Wellman, 2002; Mok et al., 2010; Wellman, 1996). Mok et al. (2010) observed in particular a marked drop in frequency of face-to-face contact with friends and relatives at about five miles. We likewise expected to see the effects of distance when the father lived more than a few kilometers from his child's home. To differentiate between fathers living close by and those living farther away, the variable was dichotomized at the median (6 km) into high versus low proximity. The sample group for the former was half composed of fathers living in the same city or town as their children. Fathers living abroad (N=13; with the exception of French departments bordering Geneva) belonged to the latter. Distance scores in this latter group were distributed in four quartiles as follows: 6-10 km, 10-20 km, 20-130 km and more than 130 km.

Frequency of contact. Respondents were asked about the frequency of face-to-face contact and other contact (phone, e-mail, etc.) between the non-resident father and child at present. Response categories were 1 = *everyday or nearly everyday*, 2 = *once or twice a week*, 3 = *once or twice a month*, 4 = *less often* and 5 = *never or nearly never*. As we assumed that frequency of contact via telecommunications would vary substantially depending on the age of the child, and due to the importance of co-presence in interactions with young children, only face-to-face contact was included in our analyses. So that higher scores would represent greater frequency of contact, items were scored in reverse order and treated as metric variables (M=3.3; Table 1). Because mothers reported fathers who had no contact with their children (category 1) more frequently than those that saw their child less than once a month (category 2), the variable was nonetheless not normally distributed (Shapiro-Wilk=.82; p<.01).

Cohesive co-parenting (by the mother). Traditionally, family research has primarily focused on overt (public) manifestations of co-parenting, aiming to

capture the degree of communication, cooperation and support between parents or, conversely, dissonance and conflict present in the co-parenting behaviors (McHale et al., 2004). The questionnaire used in this study aimed to capture another kind of co-parenting by measuring the extent to which a mother's behavior is thought to boost the father to the child and to promote positive interactions within the parents-child triad in the child's presence (McHale, 1997). This measurement differs from many other instruments used to assess co-parenting dynamics in that the mother is not asked to characterize the post-divorce family as a unit, but rather to rate her own behavior. Instead of measuring parents' involvement in sharing the concrete tasks of parenting, this indicator captures the mother's proactive commitment to promoting or affirming a positive image of the father and positive interactions within the parents-child triad, in spite of conjugal separation (McHale, 1997). This approach assumes that direct parent-to-child communications regarding the child's other parent strongly influences the child's post-divorce adjustment. The behavior categories are based on the mother's interaction with the ex-partner and child when all three are physically present (public, or "overt" co-parenting behavior) and communication with the child about the other parent when no other family members are present (private, or "covert" co-parenting behavior). The questions were as follows (X = [child's first name]): "How often in a typical moment (when all three of you are together) do you: make an affirmative or complimentary remark about X to your ex-partner? (e.g., "Did you see what X has done?")? Make an affirmative or complimentary remark about your ex-partner to X? (e.g., "It's true that daddy is really good at that!")? Say or do something to invite, facilitate or promote an affectionate or pleasant exchange between your ex-partner and X (e.g., "Show dad what you drew" or "Let dad play")? How often in a typical week, when you and your child are alone, do you: Make a comment such as to enhance X's mental image of your ex-partner (e.g., "Daddy loves you really very much;" "Daddy is proud of you")?; Make a remark to invoke or include your ex-partner in a positive way (e.g. "I bet your dad really would love to see it.")? Response categories ranged from 1 = *absolutely never* to 7 = *nearly constantly* (once or twice per hour). A cohesive co-parenting scale was generated by averaging the scores of the five questions. A dummy variable was created by dichotomizing at the median.

Emotional and behavioral difficulties in the child. Emotional and behavioral difficulties in children were measured using the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997, 1999). Mothers were asked to respond to 25 SDQ items, which are divided into five scales of five items, as described below.

Emotional symptoms scale: "Often complains of headaches, stomachaches or sickness," "Many worries, often seems worried," "Often unhappy, down-hearted or tearful," "Nervous or clingy in new situations; easily loses confidence," "Many fears, easily scared."
Conduct problems scale: "Often has temper tantrums or is hot-tempered," "*Generally obedient, usually does what adults request,*" "Often fights with other children or bullies them," "Often lies or cheats," "Steals from home, school or elsewhere."

Hyperactivity scale: “Restless, overactive, cannot stay still for long,” “Constantly fidgeting or squirming,” “Easily distracted, concentration wanders,” “*Thinks things out before acting,*” “*Sees tasks through to the end, good attention span.*”

Peer problems scale: “Rather solitary, tends to play alone,” “*Has at least one good friend,*” “*Generally liked by other children,*” “Picked on or bullied by other children,” “Gets along better with adults than with other children.”

Pro-social scale: “Considerate of other people's feelings,” “Easily shares with other children (treats, toys, pencils etc.),” “Helpful if someone is hurt, upset or feeling ill,” “Kind to younger children,” “Often volunteers to help others (parents, teachers, other children).”

For each item, the possible answers were 0 = *not true*, 1 = *somewhat true*, 2 = *very true*. Positively worded items (printed here in italics) were scored in reverse order. Scores for each of the five scales were obtained by adding the scores for the five items. Five dummy variables were created by dichotomizing at the median. The direction of the pro-social variable was reversed to account for the absence of pro-social behavior and in order to have five similarly-oriented indicators for children’s difficulties.

Moreover, we measured the impact of the difficulties in children by asking mothers whether they thought their child had difficulties in one or more of the following areas: emotions, concentration, behavior or getting along with others. When difficulties were perceived (minor, moderate or severe), the mothers were asked to rate the degree of the distress (Do the difficulties upset or distress your child?) or social impairment (Do the difficulties interfere with your child's everyday life in any of the following areas: home life, friendships, classroom learning, leisure activities?) on a 4-point scale. Possible response categories were 0 = *Not at all*, 0 = *only a little*, 1 = *Quite a lot*, 2 = *A great deal* for the five impact items. The items were then totaled to generate an impact score ranging from 0 to 10. A dummy variable was created by dichotomizing at the median. When mothers did not perceive the child as having any difficulties, the impact score was 0. Table 1 provides descriptive statistics for the study variables for the full sample and for mothers’ ex-partners, based on lower or higher education levels.

Table 1.
Descriptive statistics for study variables

	Full sample (n=144)			Less-educated fathers (N=87)		Highly-educated fathers (N=57)	
	M	*SD*	Range	*M*	*SD*	*M*	*SD*
Father-child residential proximity	.50	.50	0-1	.46	.50	.56	.50
Father-child frequency of contact	3.30	1.09	1-5	3.16	1.12	3.51	1.02
Cohesive co-parenting	.47 [a]	.50	0-1	.44	.50	.51	.50
Child's difficulties							
Emotional problems	.46 [a]	.50	0-1	.49	.50	.40	.50
Conduct problems	.46 [a]	.50	0-1	.46	.50	.46	.50
Hyperactivity problems	.50	.50	0-1	.53	.50	.46	.50
Peer problems	.44 [a]	.50	0-1	.43	.50	.46	.50
Absence of pro-social behavior	.50	.50	0-1	.46	.50	.56	.50
Problems' impact	.44 [a]	.50	0-1	.44	.50	.44	.50
Socio-demographic variables							
Father's age (years)	43.02	6.40	30-70	42.39	6.14	43.98	6.71
Mother's age (years)	39.47	4.25	29-49	38.75	3.75	40.57	4.74
Father's origin (1 = *birth abroad*)	.42	.50	0-1	.38	.49	.47	.50
Mother's origin (1 = *birth abroad*)	.30	.46	0-1	.22	.42	.42	.50
Father's work status (1 = *paid work*)	.87	.34	0-1	.83	.38	.93	.26
Mother's work status [b]	1.83	.94	0-3	1.82	.96	1.84	.92
Father's higher education (1 = *university or advanced vocational degree*)	.40	.49	0-1	0.00	0.00	1.00	0.00
Ex-partners have more than one child in common (0 = *only one*)	.47	.50	0-1	.46	.50	.49	.50
Father has a child with another partner (0 = *no other child*)	.31	.46	0-1	.33	.47	.26	.44
Number of years since separation	7.06	3.05	1-14	6.99	3.02	7.15	3.13
Length of ex-partners' relationship (in years)	8.93	4.40	1-23	8.75	4.11	9.21	4.83
Shared resid. arrangement (0 = *single-mother*)	.16	.37	0-1	.13	.33	.21	.41
Child's gender (1 = *boy*)	.47	.50	0-1	.41	.50	.54	.50
Child's age (1= *12 years and more*)	.35	.48	0-1	.32	.47	.39	.49

[a] Although the scale was dichotomized at the median, the mean is not strictly equal to 0.5, given that several cases had the median value. Values of either 0 or 1 were assigned to the median category to divide the distribution into two parts that were as equal as possible.
[b] 0 = no paid work, 1 = part time ≤ 50%, 2 = part time 50-80%, 3 = full time.

Control variables. Two types of control variables were used in the analyses: the mother/father/child's socio-demographic characteristics and the variables related to the former union between the two parents. Regarding the parents' demographic characteristics, dummy variables were included to control for births outside Switzerland (42% for fathers; 30% for mothers; with an over-representation among highly educated fathers, see Table 1) and the work status of non-resident fathers (87% employed; Table 1). The mother's work status was divided into four categories: unemployed, part-time (low), part-time (high) (modal category) and full-time employee. Age was measured in years (M=43 years for

fathers and 39 years for mothers; Table 1). We also controlled for the education level of non-resident fathers. A dummy variable was constructed to distinguish between fathers with a university or advanced vocational degree (ISCED 5-6) (40% of the sample; Table 1) and those without. The gender and age of the child were included as dummy variables, the cut-off point for age being 12 (65% of the children were under 12; Table 1). With regard to the parents' former relationship, a dummy variable was used to control for the presence of other children from that relationship (47% of the respondents had more than one child with the non-resident father; Table 1). The number of years since the separation (M=7 years; Table 1) and length of the relationship (M=9 years; Table 1) were also used. Finally, the presence of an agnatic child with another partner (31% of the sample; Table 1) and shared living arrangement (16% of the sample; Table 1) were included as dummy variables.

Missing data. Six mothers (4% of the sample) lacked information regarding the residential location of the non-resident father. These respondents were not included in the analyses. As the fathers in question were probably no longer in contact with the child, this particular post-divorce scenario was likely to be underrepresented in the sample.

5.6.3 Statistical methods

Two types of analyses were used: path analysis and regression models. A path analysis model (PA) is a structural model for observed variables, and a structural model represents hypotheses about effect priority (Kline, 2011). PA is useful in terms of providing a comprehensive view of the effects between different constructs. Statistical estimates of direct effects are path coefficients. For the present study, the effects between father-child residential proximity, frequency of contact, cohesive co-parenting and the child's difficulties were considered as a structural model as depicted in Figure 1. The residual path coefficients for each endogenous (dependent) variable were fixed to one. This multiple indicator approach was particularly useful in measuring the mediator (or indirect) effect of co-parenting on the relationship between residential proximity and the child's difficulties. The major advantage of the PA procedure is that the relevant (mediating) paths between the indicators are tested directly in the analysis.

Once the causal model has been specified, PA offers different evaluation methods to assess path coefficients and the goodness of fit model. AMOS 18.0 software (Arbuckle and Wothke 1999) was used to test all the PAs, and the maximum likelihood estimation method was employed. Nevertheless, because the frequency of contact variable was not normally distributed, a bootstrapping method was also used to test the stability of our statistical findings. We found that the standard errors of the parameter estimates computed across the bootstrap samples were similar to standard errors based on the maximum likelihood estimation. The fit of the models was assessed by multiple indexes, such as Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA). A model is considered adjusted to the data if its AGFI is more than 0.9, its CFI more than 0.95 and its RMSEA is less than 0.06 (Hu and Bentler 1999).

To provide a direct test of mediation by cohesive co-parenting, we compared the magnitude of the effect of residential proximity on child difficulties in a just-identified model that omitted cohesive co-parenting and frequency of contact (*non-mediated model*) to one that included cohesive co-parenting and frequency of contact as depicted in Figure 1. The difference between the two estimates equals that part of the residential proximity effect that is mediated by cohesive co-parenting (i.e., the indirect effect; Baron and Kenny, 1986).

To test the interaction effect of the father's education level, we used the nested two-step goodness-of-fit strategy (Jaccard and Wan, 1996). In the first step, the parameter estimates were computed simultaneously for highly- and less-educated fathers in a multiple group analysis. In the second step, the model was estimated again, but this time with a fixed and equal coefficient for both groups (highly- and less-educated fathers). If there was no interaction effect, the two coefficients were similar in both groups, and such a constraint would not significantly affect model fitness relative to the analysis in step one. If, on the contrary, there is a somewhat sizable interaction effect, then this constraint would significantly affect model fitness of the unconstrained solution. Thus, the difference between the chi-squared fit index for the constrained solution and the fit index for the unconstrained solution allowed us to measure the existence of an interaction effect. When this difference was statistically significant (chi-squared statistics, degree of freedom=1), the null hypothesis stating equal coefficients across the two educational groups was rejected, and the existence of an interaction effect proven. This procedure was done for each path coefficient in the causal model.

In order to control the possible effects of structure (confounding effects), a series of regression models was likewise estimated, using socio-demographic characteristics as control variables. All the dependent variables were dichotomized, making logistic analysis appropriate. To test for the mediating effect of cohesive co-parenting, three regression models were estimated (Baron and Kenny, 1986). To begin, cohesive co-parenting was regressed on father-child residential proximity. Next, each type of emotional or behavioral problem was regressed on father-child residential proximity. Finally, cohesive co-parenting was added as predictor to the second model. To establish mediation, the following conditions had to hold true: first, residential proximity had an impact on cohesive co-parenting; second, residential proximity had an impact on the child's problems. Third, cohesive co-parenting impacts on the child's problems, and the effect of residential proximity on the child's problems was less important when the effect of cohesive co-parenting was controlled. The interaction effect between residential proximity and the father's education level was included in the three models. For purposes of co-linearity with the main variables, the interaction variable was centered on the mean. Regression coefficients can be interpreted by taking the antilog (e^{β}) to determine how much the odds of problems are increased or decreased when the independent variable increases by 1.

5.7 Results

Table 2 shows residential proximity regressed on the set of socio-demographic factors. Ex-spouses with a joint custody arrangement and more than one child in common were more likely to live close to each other than ex-partners with only one child and in which the mother alone had custody respectively. The residential proximity of the non-resident father was also significantly predicted by the age and work status of the mothers: the older the mother was, the more likely the father was to live close to his child. Moreover, fathers lived closer to their children when the mother was not employed outside the home, compared to situations where the mother was employed part-time (reference category). Residential proximity between the father and child tended also to diminish as the time since separation increased. Finally, fathers were more likely to live near the child when the child was a girl.

Table 2

Logistic regressions of the father-child residential proximity on socio-demographic characteristics and of the cohesive co-parenting on father-child residential proximity and frequency of contact (Odds Ratios)

	Father-child residential proximity	Cohesive co-parenting
Father-child residential proximity		1.26
Father-child proximity & father's higher education		6.73*
Frequency of contact between father-child		2.06*
Father's age	.98	1.04
Mother's age	1.22**	.97
Father's birth abroad	.49	.42
Mother's birth abroad	2.33	.91
Father's occupation: paid work	.42	2.05
Mother's occupation: full time	1.06	.27*
Mother's occupation: part time 50-80%	-	-
Mother's occupation: part time ≤ 50%	1.16	.51
Mother's occupation: no paid work	12.66**	.95
Father's higher education	1.51	1.22
Ex-partners have more than one child in common	2.95*	.59
Father has a child with another partner	.99	.73
Number of years since separation	.82*	.93
Length of ex-partners' relationship	.91	.94
Child's gender (boy)	.25**	1.50
Child's age (12 years and more)	.67	.57
Shared residence arrangement	16.87**	.92
Chi^2	58.19**	47.45**
D*f*	16	19
R^2 Cox&Snell	.33	.28
N	**144**	**144**

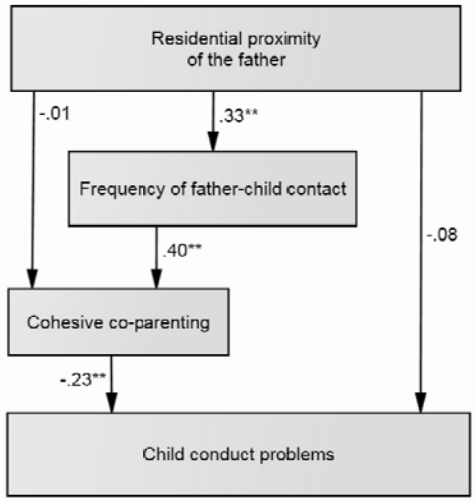
** p<.01 * p<.05

A second regression analysis confirmed the significant effect of the father's residential proximity on cohesive co-parenting for highly-educated fathers, under the control of socio-demographic variables (see Table 2). Frequency of contact had also a significant effect on cohesive co-parenting: the more frequently the father saw his child, the higher cohesive co-parenting was. Finally, cohesive co-parenting was lower when the mother worked full time (as opposed to mothers who worked part-time) and when the father was born outside of Switzerland ($p<.1$). The length of the relationship between the ex-partners and presence of an agnatic child with another partner had no effect on the father's residential proximity and cohesive co-parenting, and were therefore not included in the later regression models.

The results of the path analysis models are presented in Table 3 for the five types of child difficulties and overall impact of these difficulties. Models A included a unique path between the father's residential proximity and child's difficulties (non-mediated model), while models B included paths through cohesive co-parenting and frequency of contact as depicted in Figure 1 (mediated model). Given the small sample size, we chose a cutoff alpha value of 0.05 for significance testing. The standardized estimates for the full sample are presented in the first two columns of Table 3 and in Figure 2 in the case of child conduct problems. The six models fit the data well, except for peer problems, which had a somewhat weaker fit to the data (see Table 3). Standardized estimates for the full sample show first that the direct effect of residential proximity on frequency of contact and the effect of frequency of contact on cohesive co-parenting were statistically significant. There was, however, no significant effect of residential proximity on cohesive co-parenting.

Figure 2

Path model (Standardized solutions)



Concerning child's problems, results for the full sample indicated few significant effects of residential proximity or cohesive co-parenting. We nevertheless

observed that a higher cohesive co-parenting significantly decreased the risks of conduct problems. Furthermore, residential proximity was directly and significantly associated with greater pro-social behavior. With regard to the overall impact of problems, both the residential proximity of the father and cohesive co-parenting were significantly associated with a lower impact of difficulties. Cohesive co-parenting only marginally mediated the effect of residential proximity on the impact of problems (decrease of the coefficient from -.18* to -.16*).

Standardized estimates for the lesser and highly-educated father models (multiple group analysis) are indicated in the right part of Table 3. Figures 3 and 4 illustrate the regression paths and standardized estimates in the case of child conduct problems, for less- and highly-educated fathers respectively. The six models fit the data well, except again for peer problems. In this last case, the model does not fit the data well, because frequency of contact between non-resident fathers and their child had strong and opposite effects on peer problems for children of highly- versus less-educated fathers. While frequent contact with the father was strongly associated with fewer difficulties with peer relationships for children of highly-educated fathers, father-child contact was strongly associated with greater peer difficulties for children of less-educated fathers (results not reported). Path coefficients from Table 3 indicate first that, in both the lesser and highly-educated father models, the direct effect of residential proximity on frequency of contact was statistically significant, with the effect for highly-educated fathers being more important (n.s. interaction effect $\Delta\chi^2$=2, Δdf=1). With regard to the impact of residential proximity on cohesive co-parenting, there was a significant interaction effect across both groups ($\Delta\chi^2$=6*, Δdf=1). For highly-educated fathers, residential proximity of the father had a significant direct, positive effect on cohesive co-parenting, but negatively affected cohesive co-parenting for less-educated fathers, though not significantly. For this group alone was there a direct, significant effect of frequency of contact on cohesive co-parenting (significant interaction effect: $\Delta\chi^2$=4*, Δdf=1).

Estimates for the lesser and highly-educated father models indicate contrasting patterns of effects across the different child difficulties scales. Concerning emotional problems, none of the variables included in the model had a significant influence. In the cases of less-educated fathers, we nevertheless observed that a higher cohesive co-parenting almost significantly ($p<.1$) decreased the risks of emotional problems (coefficient=-.13, no significant interaction effect $\Delta\chi^2$=1, Δdf=1). With regard to conduct problems and the overall impact of problems, both the residential proximity of the father and cohesive co-parenting were significantly associated with lower difficulties in the case of highly-educated fathers. There was a significant interaction effect across the two education groups with regard to the impact of residential proximity on conduct problems ($\Delta\chi^2$=8**, Δdf=1 and $\Delta\chi^2$=5*, Δdf=1 for the non-mediated and mediated model respectively). Cohesive co-parenting partially mediated the effect of residential proximity on conduct problems (decrease of the coefficient from -.40** to -.31**) and the effect of residential proximity on the impact of problems (decrease of the coefficient from -.22* to -.15). Residential proximity was directly and significantly associated with greater pro-social behavior in the

case of highly-educated fathers (significant interaction effect $\Delta\chi^2$=6*, Δdf=1). Finally, residential proximity of the father was significantly associated with lower hyperactivity problems in the case of highly-educated fathers, although the effect was only significant in the non-mediated model. When the indirect effect through the frequency of contact and cohesive co-parenting was included, the path coefficient decreased from -.26* to -.23. The impact of cohesive co-parenting on hyperactivity problems was nevertheless not significant.

Figure 3

Path model, Less-educated fathers (Standardized solutions)

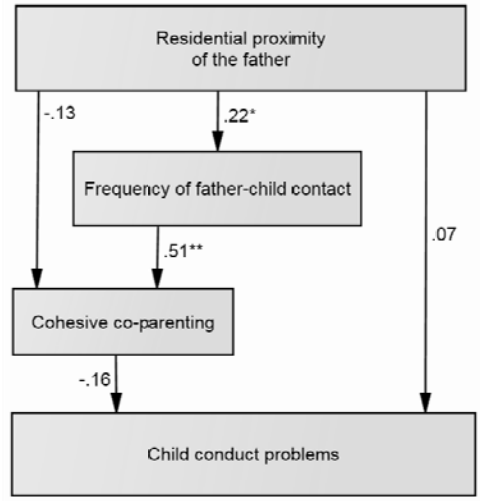


Figure 4

Path model, Highly-educated fathers (Standardized solutions)

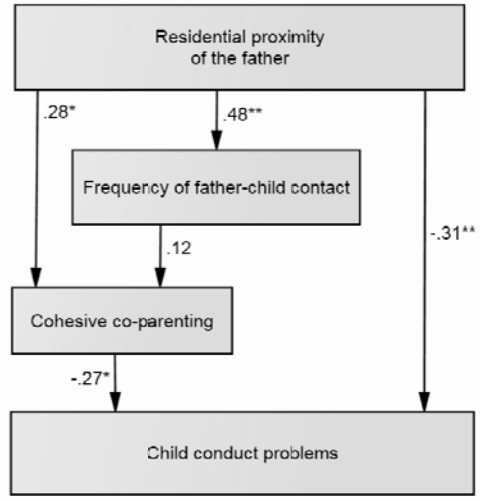


Table 3

Standardized path model coefficients for full sample, less-educated and highly-educated fathers for the non-mediated model (A; unique path between residential proximity and child's problems) and mediated model (B; see Figure 1)

	Full sample (n=144)		Less-educated fathers (N=87)		Highly-educated fathers (N=57)		Equality constraint $\Delta\chi 2$	
	A	B	A	B	A	B	A	B
Residential proximity (frequency of contact)		.33**		.22*		.48**		2.11
Residential proximity (cohesive co-parenting)		-.01		-.13		.28*		5.51*
Frequency of contact (cohesive co-parenting)		.40**		.51**		.12		3.99*
Emotional problems								
Residential proximity	.00	.01	.01	.01	.01	.00	.00	.00
Cohesive co-parenting		-.08		-.13		.02		0.74
Model B fit (Full sample): χ^2(N=144, D*f*=1)=.36, AGFI=.99, CFI=1.00, RMSEA=.00								
Model B fit (Multiple group analysis): χ^2(N=144, D*f*=2)=1.29, AGFI=.96, CFI=1.00, RMSEA=.00								
Conduct problems								
Residential proximity	-.11	-.08	.07	.07	-.40**	-.31**	8.11**	5.25*
Cohesive co-parenting		-.23**		-.16		-.27*		.40
Model B fit (Full sample): χ^2(N=144, D*f*=1)=.01, AGFI=1.00, CFI=1.00, RMSEA=.00								
Model B fit (Multiple group analysis): χ^2(N=144, D*f*=2)=2.89, AGFI=.90, CFI=.99, RMSEA=.06								
Hyperactivity problems								
Residential proximity	-.11	-.11	-.01	-.01	-.26*	-.23	2.16	1.59
Cohesive co-parenting		-.10		-.10		-.08		.01
Model B fit (Full sample): χ^2(N=144, D*f*=1)=.63, AGFI=.98, CFI=1.00, RMSEA=.00								
Model B fit (Multiple group analysis): χ^2(N=144, D*f*=2)=2.99, AGFI=.90, CFI=.98, RMSEA=.06								

	Full sample (n=144)		Less-educated fathers (N=87)		Highly-educated fathers (N=57)		Equality constraint Δχ2	
	A	B	A	B	A	B	A	B
Peer relationship problems								
Residential proximity	-.01	.00	.09	.09	-.18	-.15	2.64	1.86
Cohesive co-parenting		-.09		-.05		-.11		0.09
Model B fit (Full sample): χ^2(N=144, D*f*=1)=2.07, AGFI=.93, CFI=.97, RMSEA=.09								
Model B fit (Multiple group analysis): χ^2(N=144, D*f*=2)=15.47**, AGFI=.51, CFI=.77, RMSEA=.22								
Social behavior problems								
Residential proximity	-.17*	-.17*	-.02	-.02	-.43**	-.44**	6.16*	6.37*
Cohesive co-parenting		.04		.07		.06		.00
Model B fit (Full sample): χ^2(N=144, D*f*=1)=1.45, AGFI=.95, CFI=.99, RMSEA=.06								
Model B fit (Multiple group analysis): χ^2(N=144, D*f*=2)=2.41, AGFI=.92, CFI=.99, RMSEA=.04								
Impact problems								
Residential proximity	-.18*	-.16*	-.16	-.17	-.22*	-.15	.11	.01
Cohesive co-parenting		-.19*		-.17		-.22*		.06
Model B fit (Full sample): χ^2(N=144, D*f*=1)=2.67, AGFI=.91, CFI=.97, RMSEA=.11								
Model B fit (Multiple group analysis): χ^2(N=144, D*f*=2)=4.91, AGFI=.84, CFI=.95, RMSEA=.10								

** p<.01 * p<.05

Table 4

Logistic regressions of the child's problems on father-child residential proximity and frequency of contact (A) and cohesive co-parenting (B) (Odds Ratios)

	Emotional problems		Conduct problems		Hyperactivity problems		Peer relationship problems		Low pro-social behavior		Problems' impact	
	A	B	A	B	A	B	A	B	A	B	A	B
Father-child residential proximity	.65	.66	.62	.62	.78	.80	.71	.72	.32**	.32**	.53	.54
Father-child proximity & father's higher education	1.31	1.58	.18*	.23	.23*	.28	.24*	.29	.11**	.11**	.71	.99
Frequency of contact between father and child	1.06	1.14	.81	.94	1.23	1.38	1.51	1.66*	1.20	1.21	1.17	1.40
Cohesive co-parenting		.57		.31**		.43*		.46		.93		.26**
Father's age	1.03	1.03	1.03	1.04	.95	.95	1.06	1.07	1.01	1.01	.97	.98
Mother's age	1.01	1.01	.98	.96	.94	.92	.91	.90	.97	.97	.93	.91
Father's birth abroad	.80	.74	1.04	.85	.96	.83	.76	.66	.81	.80	1.27	1.02
Father's higher education	.74	.75	1.04	1.10	.80	.81	1.36	1.41	1.95	1.95	.96	.98
Father's occupation: paid work	.62	.64	2.24	2.43	3.16	3.62*	.42	.44	1.67	1.67	3.42	4.25*
Mother's occupation: full-time	.87	.76	.72	.54	.95	.78	1.41	1.15	.55	.54	1.06	.78
Mother's occupation: part-time (50-80%)	-	-	-	-	-	-	-	-	-	-	-	-
Mother's occupation: part time (≤ 50%)	1.17	1.10	.60	.51	.25*	.22*	1.29	1.17	.21*	.21*	.71	.58
Mother's occupation: no paid work	5.58**	5.73**	1.87	2.01	1.01	.99	3.50*	3.62*	1.18	1.18	1.05	1.09
Number of years since separation	.97	.97	.99	.97	1.12	1.12	1.06	1.06	.96	.96	1.05	1.04
Ex-partners have more than one child in common	1.94	1.86	1.77	1.58	.85	.79	.71	.67	.99	.98	.77	.65
Shared residence arrangement	.88	.87	.80	.77	.67	.68	1.16	1.21	1.20	1.20	1.30	1.30
Child's gender (boy)	.84	.87	1.42	1.59	1.64	1.76	.79	.84	1.67	1.68	1.49	1.68
Child's age (12 years or more)	1.05	.99	1.86	1.71	1.03	.92	.89	.80	2.45	2.44	1.78	1.56
Chi^2	14.14	15.97	23.69	30.94*	22.29	26.09	17.73	20.97	29.13*	29.15*	16.44	26.12
D*f*	16	17	16	17	16	17	16	17	16	17	16	17
R^2 Cox&Snell	.09	.11	.15	.19	.14	.17	.12	.14	.18	.18	.11	.17
N	**144**	**144**	**144**	**144**	**144**	**144**	**144**	**144**	**144**	**144**	**144**	**144**

** p<.01 * p<.05

A last set of regression models was estimated, with child difficulties as dependent variables (Table 4). Models A included father-child residential proximity and frequency of contact as predictors, while cohesive co-parenting was added in Models B. Findings showed that children with well-educated fathers that lived nearby had less conduct, hyperactivity and peer problems, and greater pro-social behavior. Except for pro-social behavior, these effects can partly be explained by cohesive co-parenting, as they became insignificant once cohesive co-parenting was included in the model. Cohesive co-parenting was significantly associated with lower risks of both conduct and hyperactivity problems (peer problems $p<.1$). The father's residential proximity predicted greater pro-social behavior in children, regardless his level of education. Frequency of contact had no impact on child difficulties, except with peer problems. When cohesive co-parenting was included in the model, frequent contact with the father was associated with greater problems with peers. Finally, neither emotional problems nor the impact of difficulties were associated with residential proximity or frequency of contact between father and child. Only cohesive co-parenting (emotional problems $p<.1$) had a beneficial impact on these aspects of the child's well-being.

5.8 Discussion

Our study addressed the current debate regarding whether or not the residential proximity between non-resident fathers and their children have a beneficial impact on the latter's development. We hypothesized that such a positive link might be explained by the fact that mothers display more committed co-parenting behavior when the father lives close by and has frequent contact with the child. Based on our data, this expectation was only partially confirmed with regard to highly-educated fathers. Children whose highly-educated fathers lived nearby were more likely to benefit from greater cohesive co-parenting, which in turn was associated with lower risks of conduct and hyperactivity problems. It nevertheless appears that the protective effect of residential proximity can, to some extent, also be explained by the socio-demographic characteristics of parents and children that live close to one another. In particular, the positive influence of the highly-educated father's residential proximity on the overall impact of problems in the child disappeared when the effects of other socio-demographic characteristics were controlled. Living close to a highly-educated father likewise had a positive impact on the child's pro-social behavior, without the mediation of cohesive co-parenting. By contrast, frequency of contact between a father and child had a relatively minor impact on a child's difficulties. Nonetheless, it would appear that frequent contact with less-educated fathers was associated with greater cohesive co-parenting, which in turn tended to reduce emotional difficulties and the overall impact of difficulties in children.

The analyses performed in this study showed first and foremost that residential proximity and frequency of contact between a father and child decidedly influenced whether or not the mother promoted a positive image of the non-resident father and positive interactions within the parents-child triad in the child's presence. The causal mechanism differed considerably, however, for highly- and less-educated fathers. In the latter case, the more frequent the contact between father and child, the greater cohesive co-parenting behaviors

were. By contrast, residential proximity of highly-educated fathers had a direct effect on the cohesive co-parenting. Finally, a father's residential proximity was more strongly linked to frequent contact with the child when his level of education was higher. These findings are consistent with Le Gall's (1996) and Martin's (1997) study showing that ex-partners with highly cultured backgrounds tended to remain in residential proximity to one another in order to facilitate contact between the non-resident father and child. For these families, residential proximity between parental homes has probably favored moments of physical co-presence between ex-partners and their child, thus fostering a cohesive co-parenting, without the father even having to see the child frequently. Because of greater resources (communicational and organizational skills in particular), parents from culturally-rich environments are likewise more apt at dealing with living close to one another and interacting in parenting roles than ex-spouses from low socio-economic backgrounds. Because of cultural norms, families with higher educational backgrounds more often tend to continue promoting the other parent to the child than families with low cultural resources, for a given frequency of contact between father and child. Conversely, less-educated mothers are more likely to depict the non-resident father in a positive light, especially when the father continues to have frequent contact with the child. In the case of less-educated fathers, residential proximity between the ex-partners is less associated with a strategy to maintain father-child contact or parental coordination.

Secondly, our study found that, in the case of highly-educated fathers, the effects of residential proximity on child's difficulties was partially mediated by cohesive co-parenting. Children whose well-educated fathers lived nearby had lower risk of conduct and hyperactivity problems because they were more likely to benefit from a higher cohesive co-parenting than children whose fathers were less educated or lived further away. This finding is consistent with previous studies, which showed that good co-parenting is necessary for children to benefit from the presence of their non-resident father (see for example Amato and Rezac, 1994; Harold and Murch, 2005; Teubert and Pinquart, 2010). It likewise supports the hypothesis that maternal intervention through direct mother-to-child communication has a strong influence on the relationship between the non-resident father's involvement and the child's well-being. Speaking well of the non-resident father and promoting positive interactions within the parents-child triad in the child's presence most likely limits inter-parental discrepancies, loyalty conflicts and the child's confusion with regard to identity, all of which are associated with behavioral difficulties (Hancock, 1980; Emery, 1999). Contrarily, family systems research (for instance research on triangulation) has shown that, when a parent forms an alliance with the child against the other parent, the child is more likely to show signs of stress and confusion (see, for example, Buchanan et al. 1991).

The link between the residential proximity of well-educated fathers and children's difficulties was, nevertheless, not entirely mediated by cohesive co-parenting. The path analysis models for highly-educated fathers showed indeed only a moderate decrease in the magnitude of the effect of residential proximity on conduct and hyperactivity difficulties, as well as on the overall impact of difficulties, when the mediator effect through cohesive co-parenting was added

to the model. Furthermore, the beneficial impact of residential proximity on pro-social behavior was not mediated by cohesive co-parenting. These findings can be interpreted in two ways. First, except for pro-social behavior, the socio-demographic characteristics of the parents and child moderated the impact of residential proximity on the child's difficulties. Most notably, children tended to live close to their fathers and have few difficulties because of their young age (5 to 11), or because the father was unemployed. Although we must be cautious in our interpretation, due to the small size of our sample, we can posit that adolescents experience more behavioral difficulties than younger children, and that unemployed, well-educated fathers have more time to invest in their relationship with their children than do employed fathers. The second interpretation is that residential proximity with the child is the result of highly-educated fathers' strategy to remain actively involved in parenting. In this case, it is likely that dimensions of the father-child relationship other than that of frequency of contact at the time of the interview – such as emotional quality or authoritative parenting – further mediate the link between residential proximity and children's outcomes (Amato and Gilbreth, 1999; Whiteside and Becker, 2000). The strong influence of residential proximity on a child's pro-social behavior, in particular, suggests that the presence of a well-educated father, even occasionally, allows the child to grow up as part of a broader network of family relationships, which enhances their social contacts and pro-social skills.

Thirdly, the frequency of father-child contact had only a minor impact on a child's difficulties. Frequency of contact with less-educated fathers was significantly associated with a cohesive co-parenting, but neither frequency of contact nor cohesive co-parenting significantly affected the child's difficulties in less-educated families. There was only a tendency toward fewer emotional problems and lower overall impact of problems in instances of greater cohesive co-parenting (degree of significance $p < .1$). The impact of frequency of father-child contact tended to be negative on the whole when the effects of the father's residential proximity and the cohesive co-parenting were taken into account. In the case of less-educated fathers, frequent contact with the father engendered greater difficulties in peer relationships for the child, once the positive effect of cohesive co-parenting was taken into account. These findings are consistent with a large body of empirical work that suggests that the quality of the parenting that children receive has a greater impact on their ability to adjust to a divorce than does frequency of contact with the non-resident parent (Amato and Gilbreth, 1999; Buchanan et al., 1991, 1996; Dunn, 2004; Hetherington et al., 1998; Smith et al., 2001; Whiteside and Becker, 2000). Once the positive association between frequency of contact and the quality of the parenting is taken into account, frequent contact with the father has little – or even negative – impact on the child's adjustment.

Finally, our study found that the father's education greatly influenced the relationship between residential proximity, frequency of contact, cohesive co-parenting and the child's outcomes. The lower risk of child difficulties when highly-educated fathers lived nearby can be interpreted in several ways. Firstly, highly-educated fathers are more likely to have the parenting skills and resources needed to have a high-quality relationship with the mother and the child, and thus a positive impact on the latter's well-being than less-educated

fathers (Rettig et al., 1999). Moreover, in socially and economically disadvantaged families, divorce might be more contentious, resulting in conflict and possible denigration of the ex-spouse. This can lead to the father's disengagement from the child, because seeing the child is emotionally painful and/or because the mother hinders the father's involvement in the child's life. Lastly, because of cultural norms, families with more-educated backgrounds are likely to consider that the non-resident parent is still responsible for the child's care and education (Le Gall, 1996; Martin, 1997). In these families, child custody tends to be negotiated between the two ex-spouses, rather than exclusively determined by divorce law. As such, residential proximity is more often the result of a common decision to facilitate contact between the father and the child than in working-class families. Parents from low socio-economic backgrounds, on the other hand, may feel the non-resident father no longer has much to offer to the child.

This study has several limitations. Firstly, it was done cross-sectionally so that we cannot test a true causal model and exclude the possibility of reverse causality. It is indeed possible that the proposed model is non-recursive, meaning that the relationship between the residential proximity, the non-resident father's frequency of contact with his child and the child's difficulties are reciprocal. Based on Dunn et al.'s (2004) study, we could, in fact, posit that less difficulties in the child's development favors frequent contact with the father, as well as his intent to live near his child. In this case, the proposed causal model would be misspecified. This issue is critical, and needs to be clarified through further inquiry based on longitudinal and qualitative data. Furthermore, the effects of a father's absence on the child's development may change over time. Child difficulties scales and frequency of contact were measured at a single point in time. As such, links that develop gradually over time are difficult to assess. A move just before the interview, for instance, would probably have an impact later in the child's development. Likewise, low frequency of contact with the father shortly after a divorce would probably not have the same impact on the child as low frequency of contact several years later. Secondly, our study relies solely on data from mothers. Mothers reports regarding child difficulties and co-parenting in particular are particularly subject to subjectivity and social desirability. It would be useful to include information on child difficulties and co-parenting dynamics from other sources, such as fathers, teachers or children themselves. Non-biased data from non-resident fathers are nonetheless difficult to gather, as fathers who are less involved tend to be more difficult to interview. Thirdly, the measure of father's involvement was limited to contact frequency. Additional indicators, such as the closeness of the father-child relationship, the degree of support (financial, practical or emotional), the degree of authoritative parenting or the frequency of involvement in children's activities would be necessary for a more in-depth examination of the dynamics of father-child interactions. We can suppose that the observed link between a highly-educated father's proximity and a child's well-being is mediated by more dimensions of the father-child or father-mother relationship than those included in this study. Future research should explore these issues using a data set with more indicators of the father involvement and of the relationship between parents (degree of conflict, degree of cooperation). In addition, although the sample was

randomly selected, its small size limited the statistical power of the study, especially in the case of the regression models, which included many control variables.

Nevertheless, our results provide new information about influences of the non-resident father's residential proximity on the child's well-being. The mediating effect of the mother-to-child positive affirmation of the father also provides new evidence that resident mothers play a central role in the outcomes of the father's involvement for the child. This underlines the importance of including family context variables in research on specific family relationships like the child-non-resident father dyad. The differences between highly and less-educated families in causal patterns have likewise demonstrated that a unique model of stepfamily functioning is an illusion. Our evidence suggests that policy-makers should take this plurality into account in developing legislation with regard to contact between children and non-resident fathers.

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Conclusion

Les cinq articles constituant ce travail de doctorat ont mis en lumière un certain nombre de transformations des liens interpersonnels en situation de mobilité spatiale ou d'éloignement géographique. Mettant de côté d'autres aspects du lien social comme son contenu ou sa durée, nous nous sommes concentrés principalement sur quatre dimensions du lien social : la spatialité, la structure, la quantité ou encore la qualité des liens sociaux.

Effets sur la spatialité des liens intimes

En ce qui concerne la spatialité, nos études ont montré que la mobilité spatiale favorise une dispersion géographique des quelques personnes avec qui on « discute de choses importantes » (Viry et al., 2009a ; Viry, 2011). Qu'elle soit réversible comme dans le cas de la pendularité quotidienne ou irréversible comme dans le cas de la mobilité résidentielle, la mobilité spatiale conduit à un éloignement général des personnes desquelles un individu est le plus proche. Dit autrement, les personnes mobiles parviennent à maintenir des liens à distance résultant de leurs expériences de mobilité. Les travaux portant sur les liens entre pratiques régulières de mobilités spatiales et liens interpersonnels se sont souvent centrés sur les liens professionnels (Kennedy, 2004, 2005, Kesselring, 2005, 2006 ; Larsen et al. 2006 ; Wittel, 2001), mettant notamment en exergue la versatilité et le renouvellement importants de ces liens. Nos résultats montrent que la pratique de mobilité spatiale modifie également en profondeur l'espace de sociabilité des liens les plus forts d'un individu, c'est-à-dire les liens multiplexes[20], chargés émotionnellement, construits dans la durée et dans l'interaction fréquente.

L'hypothèse selon laquelle la pendularité quotidienne de longue distance est associée à un réseau social localisé incitant les individus à penduler plutôt qu'à déménager (Kaufmann et al., 2006) doit être rejetée à la lumière de nos résultats. La pendularité quotidienne ne doit ainsi pas être strictement comprise comme un moyen de maintenir un ancrage relationnel localisé, mais également comme une pratique de mobilité associée à un espace relationnel plus large. Ce résultat est d'autant plus remarquable qu'il ne s'agit pas principalement de liens tissés autour du lieu de travail éloigné, mais bien du petit noyau de personnes les plus significatives (parenté, amis).

Ce résultat suggère plus fondamentalement que les individus spatialement mobiles, soit quotidiennement (pendularité), soit ponctuellement (migration), doivent de surcroît se déplacer (virtuellement ou physiquement) pour maintenir leurs relations sociales à distance, héritées de leur expérience de mobilité. Discuter de sujets importants, jouer le rôle de confident ou de conseiller peut se pratiquer à distance, parce qu'il s'agit là d'une forme d'intimité qui ne nécessite

[20] Liens caractérisés par une pluralité de formes de relations sociales : amoureuse, amicale, commerciale, de confidence, de sang, etc. et qui s'opposent aux liens uniplexes.

pas la co-présence quotidienne. A travers les télécommunications, en particulier le téléphone, les individus peuvent solliciter des personnes géographiquement éloignées lors de moments importants. La communication à distance, en se détachant de préoccupations quotidiennes et en se centrant sur l'échange oral, peut être propice à l'intimité et aux sujets de discussion importants. Mais le maintien de liens intimes nécessite également des moments occasionnels de co-présence et donc des déplacements dans l'espace physique (Larsen et al., 2006 ; Urry, 2003). De manière cumulative, des formes de mobilité (professionnelle, résidentielle) induisent de nouvelles formes de mobilités visant à rester inséré socialement. En se cumulant, ces différentes formes de mobilité peuvent dès lors dessiner de véritables modes de vie mobiles pour certains individus (Viry et Vincent-Geslin, à paraître). Dans cette situation, la mobilité spatiale concernerait plusieurs domaines de la vie sociale (travail, sociabilité). Les capacités des personnes mobiles à utiliser les potentiels de vitesse issus des technologies modernes de transport et de télécommunication (Kaufmann, 2002 ; 2006 ; Larsen et al., 2006), mais également la nature des liens forts (forte normativité notamment à l'égard de la parenté de garder le contact, résistance du lien fort à l'absence) leur permettent de maintenir des liens intimes à distance. A l'inverse, les personnes qui n'ont pas vécu d'expériences de mobilité spatiale ont tendance à maintenir un réseau social localisé qui favorise à son tour un mode de vie sédentaire.

Effets sur la structure des liens intimes

Un deuxième résultat important est que la mobilité spatiale et l'éloignement géographique, même si les deux sont étroitement liés l'un à l'autre, n'ont pas les mêmes effets sur la structure des liens de soutien émotionnel (Viry et al., 2009a ; Viry, 2011). En effet, l'éloignement des membres d'un réseau personnel d'un individu favorise un « réseau fragmenté » (ou un capital social de type pont - bridging social capital) (Burt, 1992 ; Putnam, 2000 ; Widmer, 2006 ; Woolcock and Narayan, 2000), au sein duquel les autruis se soutiennent significativement moins les uns les autres que dans un réseau localisé. La distance empêche les individus de mettre en lien les quelques personnes desquelles elles sont les plus proches. Ces liens éloignés géographiquement les uns des autres ont également tendance à être construits dans des contextes sociaux différents, qui empêchent la transitivité des liens (« les amis de mes amis sont mes amis ») qui s'observe habituellement entre liens forts (Granovetter, 1973). L'individu au centre d'un tel réseau fragmenté joue dès lors davantage le rôle d'intermédiaire obligé dans le soutien au sein de son réseau social. Il est moins susceptible de pouvoir activer collectivement son réseau en cas de difficulté, étant donné que ses autruis se soutiennent moins les uns les autres (Widmer, 2006). Il peut en revanche jouir d'une plus grande autonomie lorsque son comportement dévie des normes du groupe que dans un réseau où tous les membres peuvent réagir collectivement à une déviance donnée (Coleman, 1988 ; 1990). Enfin, de par sa position d'intermédiaire obligé, il peut contrôler les ressources et informations dont il dispose pour les transmettre, ou pas, aux différentes parties déconnectées de son réseau (Burt, 1992).

En favorisant un éloignement géographique des membres de son réseau, la pendularité quotidienne favorise un tel type de capital social. Le fait de penduler

n'a néanmoins pas d'effet propre sur la structure des liens de soutien (Viry et al., 2009a). La mobilité résidentielle a en revanche un effet significatif propre sur la structure des liens de soutien qui va dans le sens opposé à l'effet dû à l'éloignement géographique (Viry, 2011). Les personnes vivant éloignées de leur lieu d'origine ont tendance à être moins insérées dans un réseau composé à la fois d'amis (d'enfance) et de membres de la famille. Cette constellation mixte est davantage intransitive par le fait que les amis et la parenté se soutiennent moins les uns les autres par rapport à un réseau composé exclusivement de membres familiaux ou d'amis. Etant donné qu'une constellation mixte est davantage associée à des personnes vivant proche de leur lieu d'origine, les personne résidentiellement mobiles ont tendance à avoir un réseau plus transitif ; effet qui contrebalance en partie celui dû à l'éloignement des membres du réseau.

Un deuxième effet compensatoire est dû au fait que la mobilité résidentielle d'un individu favorise, plus encore que l'éloignement entre les membres de son réseau, un éloignement de l'individu lui-même avec ses autruis. En contrôlant l'effet de la distance entre autruis, on observe alors que plus la distance entre l'individu et ses autruis est grande, plus ces autruis se soutiennent entre eux (Viry, 2011). Ce résultat a été interprété par le fait que les liens transitifs ont une plus grande probabilité de résister à la distance (Wellman, 1990 ; Wellman and Wortley, 1990). En effet, les liens forts résistent mieux à la distance que des liens faibles (voir par exemple Fischer, 1982 ; Larsen et al., 2006) et les liens forts ont davantage tendance à être transitifs (Granovetter, 1973). De plus, avoir des autruis qui se connaissent et se soutiennent les uns les autres facilitent les voyages et les rencontres physiques (occasionnelles) nécessaires pour maintenir des liens intimes à distance (Larsen et al., 2006 ; Urry, 2003). La friction de la distance peut ainsi en partie être compensée en rencontrant différents proches en même temps.

Ces résultats révèlent un processus plus complexe qu'une simple individualisation des liens en situation de mobilité proposée par Wittel (2001) et Urry (2003) dans leur *socialité en réseau*. L'individualisation des liens, définie ici par le fait que les autruis ne se soutiennent pas entre eux, s'observe davantage dans le cas de personnes peu mobiles citant des autruis éloignés les uns des autres que dans le cas de personnes mobiles éloignées de leurs autruis. Par un effet de sélection (seuls les liens les plus forts résistent à la distance) et par un effet de changement dans la composition des liens, les personnes qui s'éloignent de leur lieu d'origine parviennent à maintenir un réseau aussi dense et transitif que les personnes sédentaires, malgré l'éloignement entre leurs autruis.

Ce résultat démontre, plus fondamentalement, la manière avec laquelle les individus mobiles s'adaptent à leur situation d'éloignement géographique en maintenant et développant certains liens sociaux plutôt que d'autres. Par l'affaiblissement et la disparition des contacts à distance non connecté au reste du réseau et des configurations mixtes « parents-amis », les individus résidentiellement mobiles vont se reconstituer un réseau qui ne présente pas plus de liens individualisés, bien qu'il soit spatialement plus dispersé.

Effets sur la quantité et la qualité des liens intimes

Un troisième constat issus de nos différents résultats est que tant la mobilité spatiale individuelle que l'éloignement géographique entre autruis ont un effet propre peu marqué sur la quantité et la qualité des liens sociaux. Dans les deux études portant sur les réseaux des quelques personnes avec qui on « discute de choses importantes » (Viry et al., 2009a ; Viry, 2011), la quantité de liens de soutien émotionnel ou encore la qualité des liens – mesurée par la probabilité qu'un lien donné soit soutenant – ne varient pas, ou très faiblement, en fonction de la distance géographique entre l'individu et ses autruis ou encore en fonction de l'expérience de mobilité spatiale de l'individu. Le pendulaire de longue distance a tendance à citer des proches le soutenant moins, mais le nombre (absolu) de liens de soutien reçu n'est significativement pas différent par rapport à la situation des personnes travaillant à proximité de leur résidence (Viry et al., 2009a). Les personnes vivant loin de leur lieu d'origine tendent à soutenir davantage les personnes qu'elles citent dans leur réseau, mais, là encore, le nombre absolu de liens de soutien donné n'est significativement pas différent du nombre de liens de soutien donné par les personnes vivant à proximité de leur lieu d'origine (Viry, 2011). De même, dans l'enquête européenne « Job Mobilities and Family Lives in Europe », la qualité du lien conjugal n'est pas altérée lorsque l'un ou les deux partenaires pratiquent une forme de grande mobilité spatiale liée au travail (Viry et al., 2010). Ceci reste vrai quelle que soit la forme de mobilité pratiquée (pendularité, déménagement, absences régulières du foyer, relation de couple à distance), la structure familiale (présence ou absence d'enfants) ou le contexte national étudié (Allemagne, France et Suisse).

Ces résultats peuvent être mis en lien avec deux stratégies de conciliation présentées ci-avant : la centration sur les liens forts, en particulier la famille, et la forte mobilisation du réseau de proximité (y compris le report des tâches familiales sur le partenaire non-mobile) (voir l'introduction pages 5 et 6). La ressource en temps est souvent très importante pour la personne mobile. En s'éloignant de ses contacts sociaux d'origine, la personne mobile va alors avoir tendance à se centrer sur un petit groupe de personnes intimes, les liens les plus forts, plutôt que de maintenir un grand nombre de contacts aux liens plus faibles (Bidart et Lavenu, 2005). Ces personnes significatives, et en premier lieu le partenaire, peuvent dès lors endosser un rôle plus important qu'en situation de sédentarité, en concentrant des fonctions remplies normalement par un plus grand nombre de personnes. En sollicitant davantage les personnes qui lui sont le plus proches, des liens de dépendance, voire d'interdépendance, plus forts sont mis en place. Cette relation d'interdépendance peut être particulièrement forte entre partenaire (l'homme mobile qui investit dans la sphère professionnelle, la femme dans la famille, etc.). Ces deux éléments pourraient dès lors contribuer à ce que la qualité de ces liens ne soit pas réduite en situation d'éloignement géographique ou de mobilité spatiale.

Viry et al. (2010) mettent en lumière un autre élément important quant à l'impact de la mobilité spatiale sur la qualité du lien conjugal. Ce qui compte n'est pas tant la pratique de mobilité spatiale, mais comment cette mobilité est perçue par la personne mobile et comment elle se met en place dans la constellation familiale. Une pratique de mobilité vécue négativement par la personne mobile

n'est pas associée à davantage d'insatisfaction conjugale lorsque cette pratique a été acceptée (même à contrecœur) par la sphère familiale (notamment parce qu'elle n'y voit pas d'autres choix en fonction du système de contraintes dans lequel elle est insérée). En revanche, lorsque la mobilité est perçue négativement par la personne mobile et a fait l'objet de débats et de difficultés dans le processus de décision au sein de la famille, la qualité conjugale est significativement plus basse. Ceci semble montrer que les couples s'adaptent aux contraintes associées à la mobilité spatiale d'un des partenaires (absences répétées, investissement familial moindre, éloignement géographique), pour autant que la mobilité spatiale fasse consensus entre les deux conjoints. La mobilité peut être négativement perçue par les deux partenaires, mais si elle est perçue par eux comme le meilleur (ou l'unique) moyen pour concilier les divers intérêts en jeu (professionnel, familial, résidentiel), alors la qualité de la relation conjugale n'est pas altérée. Différentes stratégies de conciliation parmi celles précédemment citées peuvent alors se mettre en place (report des tâches domestiques et éducatives sur le conjoint non-mobile, mobilisation du réseau de parenté, plus grande autonomie des partenaires), sans que ces fonctionnements conjugaux soient sources de frustrations ou de rancœur vis-à-vis de l'autre partenaire. Par la grande centralité du lien conjugal, la personne absente par sa mobilité peut en outre investir ce lien à d'autres moments (investissement important lors des week-ends, diminution de l'investissement dans les autres liens sociaux, etc.). On peut également penser que, par effet de sélection, seuls les couples ayant développé de telles stratégies de conciliation ont pu résister, tandis que les autres se sont séparés ou ont arrêté leur mobilité.

Un autre élément pouvant contribuer à expliquer le faible effet de la pratique de mobilité spatiale sur la quantité et la qualité des liens intimes, y compris le lien conjugal, est apporté dans l'article de Viry et al. (2009b). Sur la base des données suisses de l'enquête européenne « Job Mobilities and Family Lives in Europe », il a été montré qu'à l'exception des voyages professionnels fréquents, la grande mobilité spatiale liée au travail est avant tout pratiquée par des personnes vivant seules, en couple sans enfant ou en situation monoparentale. Les personnes vivant avec partenaire et enfants sont en effet moins susceptibles de penduler ou de déménager pour des raisons professionnelles en Suisse. Les personnes mobiles, souvent de jeunes adultes, célibataires et/ou sans enfant, sont dès lors plus à même de pouvoir maintenir des contacts de qualité avec des amis ou des collègues, étant donné qu'ils ont davantage de temps disponible que des personnes avec partenaire ou des parents (principe de compétition). De même, l'impact de la mobilité spatiale sur la qualité de la relation conjugale peut être supposée moindre pour les couples sans enfant par rapport aux parents. Les couples sans enfant peuvent en effet s'adapter plus facilement à un mode de vie mobile que des couples qui doivent faire face aux contraintes spatio-temporelles associées à la parentalité et qui possèdent un style d'interaction conjugal mettant davantage l'accent sur le temps passé ensemble (Widmer et al., 2003). Cet élément n'explique pas pourquoi les couples avec enfants confrontés à la mobilité ont une qualité conjugale aussi bonne que les couples avec enfants immobiles. Toutefois, ces premiers sont relativement peu nombreux et on peut supposer que ceux-ci aient tout de même

développé des stratégies pour concilier mobilité et vie de famille (voir paragraphe ci-dessus).

L'impact significatif de l'éloignement géographique du père non-résident au sein des familles recomposées fait exception. Contrairement aux résultats précédents, la distance géographique ne peut pas être ici annulée, si bien que la qualité du lien père-enfant semble en pâtir. Bien que la qualité de ce lien n'ait pas été directement mesurée, l'étude a montré que l'éloignement géographique du père diminue les chances de promotion du père par la mère auprès de l'enfant et augmente les risques de difficultés dans le développement de l'enfant, ce dernier effet étant uniquement observé chez les pères de haut niveau de formation. Ces effets ont été interprétés comme le résultat d'une moindre implication des pères de milieux sociaux supérieurs dans la relation affective et éducative avec leur enfant lorsqu'ils vivaient éloignés de celui-ci. Plus précisément, nous expliquons ce résultat par une stratégie des pères de milieux sociaux supérieurs de rester à proximité géographique de leur enfant issu d'une précédente union afin de rester significativement impliqués dans les pratiques parentales.

Deux raisons principales peuvent être avancées pour expliquer cette différence par rapport aux résultats précédents. Premièrement, la relation père-jeune enfant est probablement davantage demandeuse en terme de rencontres en face-à-face que les relations d'amitié ou de parenté. Des rencontres physiques occasionnelles et des contacts à distance à travers les moyens de télécommunications permettent de maintenir un lien d'intimité et de soutien émotionnel fort. Ceux-ci ne semblent en revanche pas suffisants pour permettre un aussi bon développement de l'enfant que dans la situation où les contacts en face-à-face avec le père sont réguliers. Si le soutien économique peut plus facilement se faire à distance, le soutien émotionnel et pratique (affection, soutien scolaire, transport à l'école, etc.) nécessitent un échange d'émotions et une co-présence régulière que seule une grande proximité spatiale peut permettre. Deuxièmement, dans les précédentes études, l'éloignement géographique avec un partenaire ou un autrui cité par le répondant comme une personne significative (lien électif) est le signe que ce lien est suffisamment fort pour survivre à la distance. Dans le cas de l'enfant issu d'une précédente union (lien statutaire), l'éloignement du père peut au contraire signifier un choix ou une volonté de désinvestissement dans la relation avec l'enfant.

Adaptations individuelles à la mobilité spatiale et à l'éloignement géographique

Les résultats exposés dans cette thèse de doctorat ont mis en lumière la grande résistance à la distance géographique des liens intimes et la forte adaptabilité des personnes en situation de mobilité spatiale et d'absence physique. En investissant certains liens plutôt que d'autres, en conservant certains liens forts éloignés ou encore en sollicitant davantage le cœur de leur réseau, les individus mobiles vont reconstruire un réseau social, où les liens intimes ne sont pas significativement différents en terme de structure, de nombre et de force qu'en situation de sédentarité et de contiguïté. Ni l'hypothèse de désaffiliation des individus mobiles à l'ère de la mondialisation, ni celle de l'individualisation de leurs liens sociaux perdant toute structure collective ne sont vérifiées à la lumière de nos résultats. Une nouvelle intimité construite notamment à travers

les relations à distance et les télécommunications semble alors pouvoir se constituer à long terme sans pour autant rompre avec les logiques de transitivité et de connectivité que l'on peut observer dans les réseaux communautaires plus localisés. A travers ces adaptations dans leur insertion relationnelle, les individus mobiles parviennent à retrouver ce qui leur était traditionnellement offert dans l'immobilité : l'entre-soi, la familiarité, la solidarité, l'interconnaissance. Les interdépendances et les obligations familiales n'impliquent pas forcément la co-présence régulière, mais peuvent se maintenir à travers des appels téléphoniques, des emails, des envois financiers ou encore des visites occasionnelles. Dans ce sens, la motilité (et ses différentes formes) ne doit pas être uniquement perçue comme la capacité ou propensité des individus à utiliser les potentiels de mobilité pour garder des liens à distance, mais aussi comme une capacité à se réancrer ailleurs et à mettre en lien les différentes parties de leur réseau.

Il ne faudrait pas pour autant voir dans ces résultats une infirmation des « transformations de l'intimité » (Giddens, 1993), en particulier l'individualisme et l'aspiration à l'autonomie, qui caractérisent les relations interpersonnelles dans les sociétés de la modernité avancée. La mobilité et l'éloignement spatiales sont en effet des moyens qui permettent aux individus (du moins à ceux qui en ont les ressources) d'investir ou au contraire de désinvestir certains liens en fonction de leurs affinités avec eux et des objectifs poursuivis. Se déplacer n'est ainsi pas seulement une opportunité de tisser des liens directs et nouveaux à une échelle spatiale plus large, mais également un moyen pour l'individu de se libérer de son milieu social d'origine, des liens attribués et des rôles prescrits. La distance peut dès lors, non pas uniquement être un obstacle à franchir, mais un moyen de s'affranchir de certaines responsabilités sociales, notamment vis-à-vis de la parenté, et de développer un réseau davantage électif (voir par exemple Bonvalet et Maison, 1999 sur le concept de famille élective). Ainsi, si les relations intimes d'un individu mobile sont tout autant enchâssées dans un tissu connecté d'interdépendances, elles n'en sont pas moins individualisées, dans le sens où elles sont spécifiques à chaque individu. L'individu mobile ne développe alors pas une autonomie à travers un réseau social peu dense, mais plutôt en se libérant de son milieu d'origine en créant un nouvel ancrage ailleurs ou encore en pratiquant une mobilité quotidienne lui permettant d'échapper à son milieu familial pour dégager du temps pour soi. Selon l'approche relationnelle de l'autonomie, cette dernière ne serait pas associée à une indépendance relationnelle, mais serait au contraire davantage réalisable dans la situation où l'individu nourrit des relations affectives fortes avec des personnes (Friedman, 2003). En transposant cette théorie à la mobilité spatiale elle-même, nous pouvons faire l'hypothèse que l'éloignement géographique avec son milieu d'origine et la mobilité quotidienne ne peuvent se maintenir durablement qu'en constituant un réseau interconnecté de liens intimes. Les personnes n'ayant pas développé un ancrage affectif dans leur nouveau lieu de vie risquent bien de revenir dans leur lieu d'origine (ou d'aller s'ancrer ailleurs). De même, les formes réversibles de mobilité comme la pendularité, la bi-résidentialité ou les voyages fréquents sont souvent associés à l'existence d'un réseau social fortement ancré localement. La figure moderne du nomade sans véritable centre de vie et aux liens intimes éclatés géographiquement et déconnectés entre eux existe très

certainement. On peut toutefois penser qu'elle est associée à une catégorie très spécifique d'individus, se déplaçant dans différents lieux professionnelles et sans enfant.

Limites et perspectives futures

Les résultats exposés dans cette thèse de doctorat contribuent à une meilleure connaissance de l'influence de la mobilité spatiale et de l'éloignement géographique sur les liens interpersonnels. Différentes limites de ce travail doivent néanmoins être mentionnées. Tout d'abord, la mobilité spatiale, l'éloignement géographique et les liens intimes sont en interaction mutuelle. Dans certaines situations, la causalité peut alors s'exercer davantage dans le sens opposé : la faiblesse des liens sociaux dans un lieu donné facilitant par exemple un (nouveau) déménagement. Des données comportant des informations sur la temporalité des pratiques de mobilité permettraient de tester de telles hypothèses. Deuxièmement, les résultats sont issus d'enquêtes ponctuelles et d'analyses synchroniques se centrant sur les pratiques de mobilité des individus et sur les relations interpersonnelles au moment de l'entretien. Si ces études ont permis de mieux saisir certaines transformations des liens intimes en situation de mobilité spatiale et d'éloignement géographique, elles n'ont pas permis une mesure dans la durée de ce phénomène. Il est en effet raisonnable de penser que certains changements relationnels et certaines adaptations familiales se font progressivement au fil des expériences de mobilité spatiale. Ces lacunes sont d'autant plus prégnantes que les études sur les réseaux sociaux ont mis en lumière l'important renouvellement des liens au fil du parcours de vie (voir par ex. Bidart et Lavenu, 2005 ; Kalmijn, 2003). La mobilité spatiale peut dès lors jouer un rôle d'accélérateur de changement, en favorisant de nouvelles rencontres et en entravant d'anciennes. Seules des données longitudinales sur des réseaux de taille plus importante que quelques individus permettraient toutefois une validation complète d'un tel processus de renouvellement des liens en situation de mobilité spatiale. Une mesure dans la durée des pratiques de mobilité spatiale elles-mêmes (par exemple sous forme de trajectoires de mobilité) offrirait de plus la possibilité de tenir compte des expériences passées de mobilité et de leur durée. Des entretiens qualitatifs donneraient en outre des clés de compréhension des mécanismes à l'œuvre dans ces transformations, en analysant finement l'articulation entre les pratiques de mobilité spatiale et la construction des liens intimes. Troisièmement, les analyses présentées dans le cadre de ce travail ont été réalisées soit au niveau du réseau social (données MosaiCH) soit au niveau de la relation interpersonnelle (données JobMob ou StepOut). Des analyses multi-niveaux (répondant-relation-réseau) permettraient de tenir compte simultanément des différents niveaux d'analyse. Il serait en particulier intéressant de mesurer l'éloignement géographique au niveau dyadique (distances interpersonnelles), plutôt qu'au niveau du réseau (distance moyenne entre membres du réseau), afin de vérifier si nous retrouvons les mêmes résultats qu'au niveau agrégé. Il serait également utile d'inclure davantage d'informations relatives aux relations interpersonnelles (degré d'homogamie en terme d'âge ou de formation, degré d'affinité), étant donné que ces facteurs sont susceptibles de modérer l'effet de l'éloignement géographique

sur la pérennité du lien. Disposer d'un indicateur sur la force des liens permettrait en particulier d'analyser plus finement le renforcement et l'affaiblissement de certains liens en situation de mobilité. Enfin, une analyse plus complète du capital social d'un individu nécessiterait de disposer de l'information sur un nombre plus important de contacts sociaux des répondants. Ceci permettrait notamment de prendre en compte les liens plus faibles des individus (relations professionnelles, parenté éloignée, connaissances).

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Conclusion

The five articles that comprise this doctoral thesis highlight a certain number of changes in interpersonal relationships in situations of spatial mobility or physical distance. Putting aside the other dimensions of social ties, such as their nature or duration, we primarily focused here on four dimensions: spatiality, structure, quantity and quality of social ties.

Effects on spatiality of intimate ties

With regard to spatiality, our studies show that spatial mobility practices favor the spatial dispersion of individuals with whom we "discuss important matters" (Viry et al., 2009a; Viry, 2011). Whether reversible, as in the case of daily commuting, or irreversible, as in the case of residential mobility, spatial mobility practices lead to the general distancing of the persons to whom an individual is closest. In other words, mobile individuals are able to maintain long-distance relationships as a result of their mobility experiences. Research on the links between regular mobility practices and interpersonal relationships often focus on professional relationships (Kennedy, 2004, 2005, Kesselring, 2005, 2006; Larsen et al. 2006; Wittel, 2001), most notably highlighting the remarkable versatility and renewal of these relationships. Our findings show that spatial mobility practices also deeply change the space of sociability of an individual's strongest relationships, i.e., multiplex[21], emotionally charged relationships that are built over time and through frequent interaction. The hypothesis that long-distance daily commuting is linked with a localized social network, inciting individuals to commute rather than move (Kaufmann et al., 2006), should therefore be rejected in light of our findings. Daily commuting should thus not be understood strictly as a way of maintaining localized relational ties but also as a mobility practice linked to a broader relational space. This finding is all the more remarkable considering that it concerns not only relationships forged in the distant working context, but also the individuals that make up the small core of close relations (family and friends).

Fundamentally speaking, this finding suggests that spatially mobile individuals, both daily (commuting) and occasional (migration), must moreover move (virtually or physically) in order to maintain their long-distance social ties, inherited from their mobility experience. Discussing important matters or playing the role of confidant or advisor can be done at a distance because such forms of intimacy do not require daily co-presence. Through telecommunications, especially the telephone, individuals can mobilize close but geographically distant ties at important times. By being removed from the worries of daily life and focusing on the verbal exchange, long-distance communication can favor

[21] Ties characterized by multiple forms of social relations (love, friendship, business, trust, blood, etc.), as oppose to uniplex ties.

intimacy and the discussion of important topics. Maintaining close ties, however, also requires occasional moments of co-presence, and thus physical travel (Larsen et al., 2006; Urry, 2003). Cumulatively, different forms of mobility (professional and residential) lead to new forms of mobility aimed at remaining socially integrated. Through their accumulation, these different forms of mobility may lead to complete mobile lifestyles for certain individuals (Viry and Vincent-Geslin, forthcoming). In such instances, spatial mobility affects several areas of an individual's social life (work, sociability, etc.). For these individuals, their ability to use the speed potentials of modern transportation and telecommunications technologies (Kaufmann, 2002; 2006; Larsen et al., 2006) but also the nature of strong ties (strong normativity, especially as regards blood relations, to maintain contact, close relationships' resistance to absence) allows them to maintain close ties in spite of distance. On the contrary, individuals with limited or no experience of spatial mobility tend to maintain a localized network, which in turn favors a sedentary lifestyle.

Effects on the structure of close ties

A second important finding is that spatial mobility and physical distance, though closely related, do not have the same effects on the structure of emotional support ties (Viry et al., 2009a; Viry, 2011). The spreading out of the personal contacts of an individual's social network favors a "fragmented network" (or *bridging social capital*) (Burt, 1992; Putnam, 2000; Widmer, 2006; Woolcock and Narayan, 2000), in which the personal contacts support one another significantly less than in a localized network. Physical distance hinders the individual from putting in touch with one another the personal contacts to whom he or she is closest. These geographically distant ties also tend to be built in different social contexts, making the *transitivity* ("my friends' friends are also my friends") commonly observed among strong ties more difficult (Granovetter, 1973). The individuals at the center of such fragmented networks tend to play the role of compulsory intermediary in the support between their network members. They are also less likely to be able to collectively mobilize their network in case of hardship or emergency, given that their personal contacts support one another less (Widmer, 2006). These individuals can however enjoy greater autonomy when their behavior deviates from the group's norms, more so than in networks where members can collectively react to a given deviant behavior (Coleman, 1988; 1990). Finally, because of their role of compulsory intermediary, they can control the resources and information they do or do not share with the various, unconnected members of their network (Burt, 1992).

By favoring the geographical spreading out of the members of a given network, daily commuting favors this type of social capital. Commuting over a long distance nonetheless does not itself have an effect on the structure of support ties (Viry et al., 2009a). Residential mobility, on the other hand, has a significant effect on the structure of support ties, but contrary to the effect of geographical distance (Viry, 2011). Individuals that live far from their place of origin tend to be less integrated in networks comprised of both friends (from childhood) and family members. This mixed constellation is more intransitive due to the fact that friends and blood relations support each other less than networks composed

exclusively of family members or friends. Given that a mixed constellation tends more often to be associated with persons living close to their place of origin, residentially mobile individuals tend to have a more transitive network, an effect that partially counterbalances that due to the spatial dispersion of network members.

A second compensatory effect is due to the fact that an individual's residential mobility favors the distancing of the individual him or herself from his or her personal contacts, even more so than the distance between personal contacts. By controlling for the effect of distance between personal contacts, we observed that the greater the distance between the individual and his/her personal contacts, the more the personal contacts support one another (Viry, 2011). This finding was interpreted by the fact that transitive ties have a greater probability of withstanding distance (Wellman, 1990; Wellman and Wortley, 1990). Strong ties do indeed withstand distance better than weak ones (see, for example, Fischer, 1982; Larsen et al., 2006) and strong ties have a greater tendency to be transitive (Granovetter, 1973). Moreover, having network members who know and support one another facilitates the trips and (occasional) face-to-face meetings necessary for maintaining close, long-distance relationships (Larsen et al., 2006; Urry, 2003). The friction of distance can thus, in part, be compensated for by meeting up with several close relations at the same time.

These findings reveal a more complex pattern of interrelationships between spatial mobility and structure of ties than the mere individualization of ties in situations of spatial mobility, as proposed by Wittel (2001) and Urry (2003) in their *network sociality*. The individualization of relationships, defined here as the fact that personal contacts do not support one another, can be observed more frequently in the case of non-mobile individuals who mention network members that are geographically far away from one another than in that of mobile individuals who themselves are far away from their network members. Due to a selection effect (only the strongest ties withstand the distance) and a change in the composition of ties, individuals who move away from their place of origin manage to maintain networks that are as dense and as transitive as sedentary individuals, despite the distance between network members.

More fundamentally even, these findings shows how individuals adapt to their situation of geographical distance by maintaining and developing some social links instead of others. Through the weakening and disappearance of distant contacts that are not connected to the rest of the network and of the mixed configuration of "parent/friends," residentially mobile individuals tend to reconstitute networks that do not show more individualized ties, even though they are more scattered spatially.

Effects on the quantity and quality of close ties

A third observation that came to light from our findings is that individual spatial mobility and physical distance between individuals have but a limited effect on the quantity and quality of social ties. In the two studies on networks of persons with whom we "discussed important matters" (Viry et al., 2009a; Viry, 2011), the

quantity and quality of emotional support ties – measured by the probability that a given tie was supportive – did not vary or varied only slightly based on the physical distance between the individual and the given contact or the individual's spatial mobility experience. Long-distance commuters tended to cite less supportive links, but the (absolute) number of support links received did not significantly differ from those of individuals that work close to home (Viry et al., 2009a). Individuals who lived far from their place of origin tended to be more supportive of the persons they cited in their networks, but here too the absolute number of support ties given did not vary significantly from that of individuals living close to their place of origin (Viry, 2011). Similarly, in the "Job Mobilities and Family Lives in Europe" survey, the quality of conjugal relations did not change when one or both of the partners practiced job-related spatial mobility (Viry et al., 2010). This was true regardless of the type of mobility practiced (commuting, moving, regular business trips, long-distance relationships), the family structure (presence or absence of children) or national context (Germany, France and Switzerland).

These results can be considered in connection with two of the conciliatory strategies presented earlier—the focus on strong ties (especially family) and the intense mobilization of local networks (including the transfer of domestic tasks to the non-mobile partner) (see introduction page 21). The resource of time is often very important for mobile individuals. By moving far away from their social contacts of origin, mobile individuals are more likely to focus on a small group of strongest, close contacts rather than maintain a large number of contacts with weaker ties (Bidart and Lavenu, 2005). Significant persons (the partner first and foremost) can then take on a more important role than they could in sedentary situations, by concentrating the functions typically fulfilled by more individuals. By mobilizing the people emotionally closest to him or her more often, stronger ties of dependence, or interdependence, are established. This relationship of interdependence can be particularly strong between partners (the mobile man who invests in his career, the woman who invests in the family, etc.) These two elements can then lend maintaining the quality of these relationships in situations of physical distance and spatial mobility.

Viry et al. (2010) highlight another important element when it comes to the impact of spatial mobility on the quality of conjugal relations. What matters is not so much the practicing of spatial mobility but rather how it is perceived by the mobile person and how it is integrated by the family unit. A negative experience of mobility by an individual was not associated with a higher conjugal dissatisfaction when this practice was accepted (even grudgingly) by the family unit (most notably because the members of the family unit saw no other choice according to the system of constraints in which they are embedded). On the other hand, when mobility was perceived negatively by the mobile person and was *likewise* a subject of debate and difficulties in the family's decision-making process, conjugal satisfaction was significantly lower. This seems to show that couples do adapt to the constraints associated with the spatial mobility of one of the partners (frequent absences, less investment in the family, geographical distance, etc.), as long as this mobility is consented to by both partners. Mobility may be perceived negatively by both partners, but if it is seen as the best (or

only) way of conciliating the different interests (professional, familial, residential, etc.) at stake, the quality of the relationship is not affected. Different conciliatory strategies among those cited earlier can then be employed (the transfer of domestic and educative tasks to the non-mobile partner, mobilization of the family network, greater autonomy of both partners, etc.) without becoming a source of frustration or rancor as regards the other partner. Furthermore, because of the centrality of the conjugal relationship, the absent mobile partner can invest more in this relationship at other times (greater investment on weekends, less investment in other social relationships, etc.). We can likewise assume that, because of a selection effect, only those couples that have developed such conciliatory strategies can withstand the strains due to spatial mobility, while others separated or stopped being mobile.

Another factor that may contribute to explain the weak effect of spatial mobility practices on the quantity and quality of close relationships (including conjugal relations) is addressed in Viry et al.'s (2009b) article. Based on the data for Switzerland in the European project "Job Mobilities and Family Lives", it was shown that, with the exception of frequent business trips, intense job-related spatial mobility is more often practiced by individuals living alone, childless couples or single-parents than individuals living with partner and children. In Switzerland, these latter are less likely to commute or move for professional reasons. Mobile individuals, often single young adults and/or childless, are thus able to maintain quality friendships more easily, as they have more time available for friends and colleagues than individuals with partners and children (principle of competition). Similarly, we can also assume that the impact of spatial mobility on the quality of conjugal relations is less important for couples without children than those with. Childless couples can more easily adapt to mobile living arrangements than can couples that must face the spatiotemporal burdens associated with parenthood and that emphasize more the time spent together (Widmer et al., 2003). This factor does not, however, explain why couples that have children and are confronted by mobility report as high a rate of conjugal satisfaction as non-mobile couples with children. While the former are relatively few, we can nonetheless assume that they have developed strategies for conciliating mobility and family life (see the paragraph above).

The significant impact of geographical distance with regard to non-resident fathers in stepfamilies is an exception. Contrary to previous findings, geographical distance cannot be nullified here, so that such distance seems to result in a deterioration of the quality of the father-child relationship. Although the quality of this relationship was not measured directly, the study nonetheless showed that children whose fathers lived far away were less likely to benefit from the promotion of the father by the mother and had higher risks of developmental difficulties. This latter effect was only observed for fathers with a high level of education. These effects were interpreted as the result of lesser involvement of fathers from higher social backgrounds in the emotional and educational aspects of their relationship with their child when they lived far from him or her. More specifically, we interpret this finding as a result of highly-educated fathers' strategy to remain in close proximity to a child from an earlier relationship, in order to stay significantly involved in parenting practices.

There are two possible explanations for this difference from previous findings. To begin, the relationship between a father and a young child is most likely more demanding in terms of face-to-face encounters than are friendships or family relationships. Occasional face-to-face contact and contact via different means of telecommunications in such cases make it possible to maintain close relationships and strong emotional support. This type of contact, however, does not appear to be sufficient as regards relationships with young children, where regular face-to-face contact with the father is important for their development. While financial support is more easily managed at a distance, emotional and practical support (affection, help with homework, transportation to/from school, etc.) require an exchange of emotions and regular co-presence that only close geographical proximity can allow for. Secondly, in the earlier studies, physical distance from the partner or a significant person cited by the respondent (elective relationships) is an indication that the relationship is strong enough to withstand distance. In the case of a child from a former union (statutory relationships), distance from the father can on the contrary be a sign of a decision or desire to disinvest in the relationship with the child.

Individual adjustment to mobility and geographical distance

The findings presented in this doctoral thesis revealed the great extent to which close relationships are resistant to geographical distance and to which individuals are highly adaptable in situations of spatial mobility and physical absence. By investing in some relationships more than others, maintaining certain strong ties over long distances and mobilizing more the core of their network, mobile individuals rebuild social networks wherein their close ties do not significantly differ from those in a sedentary, contiguous context in terms of structure, number and strength. Neither the hypothesis of disembedded mobile people in the age of globalization, nor the one of individualization of their social ties (with no collective structure) are supported by empirical evidence. New intimacy, built in particular via long-distance relationships through the use of telecommunications, seems able to establish itself in the long term without breaking with logics of transitivity and connectivity that we observe in more localized community networks. By adjusting their mode of interpersonal integration, mobile individuals are able to find that which traditionally was found in sedentarity—sense of belonging, familiarity, solidarity and mutual recognition. Family-related interdependency and responsibilities do not necessarily require regular co-presence, but instead can be maintained through phone calls, emails, money transactions and occasional visits. As such, motility (and its different forms) should not only be seen as an individual's ability or propensity to use the potentials of mobility to maintain ties at a distance, but also his or her ability to build roots elsewhere and link the different parts of his or her network.

We should not, however, see in these findings an invalidation of the "transformations of intimacy" (Giddens, 1993), especially the desire for autonomy, which characterizes interpersonal relationships in late modern societies. Spatial mobility and physical distance are indeed resources that allow individuals (at least those who have the resources to do so) to invest or disinvest in certain relationships depending on their affinity with them and the goals

pursued. Moving is therefore not only an opportunity to forge new, direct ties on a broader spatial scale, but is also a way for individuals to free themselves from their networks of origin, ascribed relationships and prescribed roles. Distance can then be seen not only an as obstacle to overcome, but a means of getting around certain social obligations (particularly towards relatives) and developing a more elective network (see, for example, Bonvalet and Maison, 1999, on the concept of elective family). Thus, while the close relationships of mobile individuals are as interconnected as those of non-mobile individuals, they are, however, individualized in the sense that each individual's network is specific to him or her. Thus, mobile individuals do not develop autonomy by having a sparse social network, but rather by freeing themselves from their community of origin by building new roots elsewhere, or by being mobile on a daily basis, thus allowing them to escape from the family environment and find time for themselves. According to the approach of relational autonomy, the latter is not associated with interpersonal independence but can, on the contrary, be more easily achieved in a context where the individual has developed strong emotional ties with others (Friedman, 2003). By transposing this theory to spatial mobility itself, we can hypothesize that geographical distance from one's place of origin and daily mobility can only be maintained in the long term when an interconnected network of close ties is formed. Individuals who do not develop emotional ties in their new living place are very likely to return to their place of origin (or build emotional ties elsewhere). Similarly, forms of reversible mobility like commuting, dual residency and frequent business travel are often associated with the presence of social networks that are strongly anchored locally. The modern figure of the nomad with no true roots and whose close ties are geographically fragmented and disconnected from one another undoubtedly exists. However, we associate this figure with a very specific category of highly-educated individuals who tend to work at multiple workplaces and childless.

Limits and future perspectives

The findings presented in this doctoral thesis lend to a better understanding of the influence of spatial mobility and physical distance on interpersonal relationships. Some limits of this work should nonetheless be mentioned. To begin, spatial mobility, physical distance and intimate ties interact mutually. In certain cases, causality occurs in the opposite direction: weak social ties in a given location can, for instance, facilitate a (new) relocation. Data including information about the timing of spatial mobility practices will allow to test such hypotheses. Secondly, the findings come from cross-sectional studies and synchronic analyses that focus on individual's mobility practices and interpersonal relationships *at the time of the interview*. While these studies allow us to better understand some of the changes in intimate ties that occur as a result of spatial mobility and geographical distance, they do not allow us to measure this phenomenon *in the long term*. It is reasonable to assume that certain relational changes and family adaptations take place gradually, through experiences of spatial mobility. These gaps are all the more notable as studies on social networks have highlighted the importance of renewing interpersonal ties over the course of an individual's lifetime (see, for example, Bidart and Lavenu, 2005; Kalmijn, 2003). In this way, spatial mobility can serve as a

catalyst for change by making way for new encounters and hampering old ones. However, only longitudinal data on larger networks (more than just a few individuals) will allow for complete validation of such renewal processes in situations of spatial mobility. Measuring mobility practices themselves over time (in the form of mobility trajectories, for instance) would give the possibility to consider past mobility experiences and their duration. Qualitative interviews will likewise provide keys for understanding the mechanisms at work in these transformations by accurately analyzing the links between spatial mobility practices and the building of close ties. Thirdly, the analyses presented as part of this work were done either at the level of social networks (MosaiCH) or at the level of interpersonal relations (JobMob and StepOut). Multi-level analyses (respondent-relation-network) would make it possible to simultaneously consider different levels of analysis. It would be especially interesting to measure geographical distance at the dyadic level (interpersonal distances) rather than at the network level (average distance between network members), to see if we find the same results as at the aggregate level. Likewise, it would be useful to include more information with regard to the relationships, such as degree of homogeny in terms of age, education or degree of affinity, given that these factors are likely to influence the effect of physical distance on the relationship's durability. Having an indicator able to measure the strength of ties would in particular allow us to more accurately analyze the strengthening and weakening of certain ties in situations of mobility. Finally, a more comprehensive analysis of the individual's social capital would require information on more of the respondent's personal contacts. This would in particular allow to take weaker ties, such as professional relationships, distant relatives and acquaintances, into account.

References

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