



# Effetti dell'abbassamento dei limiti di velocità nei centri urbani: riappropriarsi del contatto con l'ambiente per un maggior benessere degli utenti della strada

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Review

#### Review of City-Wide 30 km/h Speed Limit Benefits in Europe

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Abstract: To date, more and more European cities are systematically working to expand the proportion of their street network with a speed limit of 30 km/h. This paper endeavored to assess the effectiveness of city-wide 30 km/h speed limits in Europe. In an effort to condense research outputs, a quantitative approach along with qualitative assessments were implemented. This study described the changes in safety, environment, energy, traffic, livability, and health before and after the phased implementation of city-wide 30 km/h speed limits. The systematic review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines. Results from 40 different cities across Europe, including Brussels, Paris, and Zurich, indicated that reductions in speed limits improved road safety by decreasing the likelihood of crash risk and the severity of crashes that do occur. On average, the implementation of 30 km/h speed limits in European cities demonstrated a 23%, 37%, and 38% reduction in road crashes, fatalities, and injuries, respectively. Lower speed limits also yielded environmental benefits, with emissions decreasing on average by 18%, noise pollution levels by 2.5 dB, and fuel consumption by 7%, indicating enhanced fuel efficiency and reduced environmental impact. Encouraging citizens to embrace walking, cycling and utilizing public transit services can further contribute to a safer and environmentally sustainable urban environment.

Keywords: 30 km/h speed limits; road safety; speed limit reduction; cities; implementation modalities



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#### Why is necessary to reduce the speed in urban areas to 30 Km/h?

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#### Abstract

In Spain, on November 2020, a new law imposed that the generic speed limit on single carriageway two-lane roads is reduced from 50 km/h to 30 km/h.

The changes in the general rules of traffic, proposed by the Spanish government, are a sample of the evolution, in the use of the shared space of the streets, and at the same time shows its sensitivity towards road safety. Traditionally, the objective of the regulation was to attend to the growing increase in the use of motor vehicles (mainly cars), and for this reason, it was the protagonist in most of the articles of the General Traffic Regulations. Today, in many cities, the car is no longer the protagonist and shares the space on the streets, not only with other motor vehicles as buses or motorcycles, but also with pedestrians, bicycles, electric pedal-assisted cycles (EPAC), personal mobility vehicle (PMV), ...

Pedestrian mobility is becoming more and more important every day but the number of pedestrians that died inside Spanish urban areas in road accidents is almost 50% of total urban areas road fatalities. In this sense, the mobility and road safety policies developed by local administrations have to focus on the objective of the reduction of accidents and their severity involving pedestrians and other vulnerable users in urban areas.

This article collects studies and experiences in other countries that show the effects of reducing the speed of motor vehicles in urban areas in order to reduce accidents and/or their severity if they occur. It also analyzes other options that reinforce this measure and that could help reduce this problem.

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Keywords: Road safety; speed limit; urban area; pedestrian; traffic lights; traffic calming measures; crosswalk.





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#### Analysis of traffic upon school departure: Environment, behaviour, well-being and risk factors for road crashes

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#### ARTICLE INFO

Keywords: School mobility Children road safety Primary school Traffic environment Road user behaviours

#### ABSTRACT

*Introduction:* School mobility and traffic in the areas surrounding the school buildings are crucial issues for both sustainability and road safety. The literature on children's safety and school mobility has focused mainly on identifying environmental risk factors for traffic injuries.

Aims: The present study analysed the characteristics of the traffic at the time of children leaving school to identify the factors related to both traffic congestion and the risk of traffic injuries. Three aspects characterising the time when children are leaving school were considered. Two aspects concerned the traffic system: the environment (infrastructures and traffic conditions) and road users' behaviours. The third aspect was related to the people's well-being and concerned, more specifically, socialisation and stress at the time of departure from school.

*Method:* The study involved all primary schools (N=45) in a medium-sized city in northern Italy. Data were collected through naturalistic observation of the traffic outside the schools. Logistic regression analysis was performed to identify the traffic characteristics that are significantly related to a greater probability of road crashes. The risk collected for each school was finally classified into three levels (low, medium and high) according to the three considered aspects (environment, behaviours and well-being).

Results: The results highlighted that the behavioural dimension had the greatest influence on road safety. In fact, in the school areas where risky behaviours like crossing outside the zebra and walking among manoeuvring cars were more frequent, a higher probability of near misses was registered. On the contrary, one infrastructure factor, i.e., the presence of a 30 Km/h speed limit zone, was associated with a lower probability of observed near-misses.

*Conclusion:* The results supported the prospective benefits of training programs targeting both children and parents together with infrastructural improvements to promote safety and safe behaviours outside schools.



# Sinossi



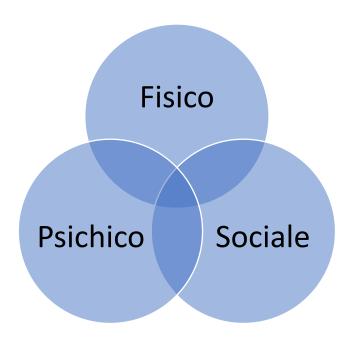
- Benessere
- Lentezza
- Relazione uomo-ambiente

### Benessere



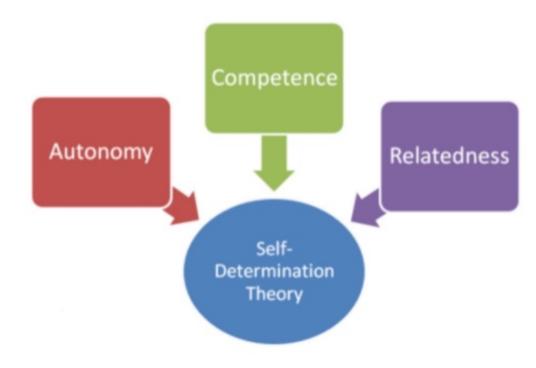
#### La definizione di salute dell'OMS (1948)

«... uno stato di completo benessere fisico, mentale e sociale e non semplice assenza di malattia».



Il modello delle componenti del benessere psicologico secondo Deci e Ryan (1985)

### **Self-Determination Theory**



# Elogio della lentezza



- «Il cervello è una macchina lenta» (Maffei, 2014); la neuroplasticità è nell'uomo un processo lento.
- > Il cervello è un ibrido di rapidità e lentezza.



# Elogio della lentezza



- «Il cervello è una macchina lenta» (Maffei, 2014), la neuroplasticità è nell'uomo un processo lento.
- Il cervello è un ibrido di rapidità e lentezza.

Ciò che si guadagna in rapidità si perde in profondità.



Luis Sepulveda Storia di una lumaca che scoprì l'importanza della lentezza

# Velocità e processamento di stimoli visivi



# The Effect of Driving Speed on Driver's Visual Attention: Experimental Investigation

June 2014

DOI: 10.1007/978-3-319-07515-0\_18

Conference: International Conference on Engineering Psychology and Cognitive

Ergonomics

Doori Jo · Sukhan Lee · Yubu Lee

Overview Stats Comments Citations (11) References (21)

#### Abstract

It has been reported that the increase in driving speed incurs a shortened pupil distance, termed as a visual tunneling phenomenon. However, our experimental investigation shows that the effect of driving speed on driver's visual attention should be understood in terms of the maximum field of view that can balance against the maximum amount of visual information a driver can take/handle against. More specifically, our experimentation shows the following: For the sake of ensuring safety, drivers tend naturally to take as much visual information as possible, should it be allowed in terms of the maximum amount of visual information they can take/handle. However, the maximum visual information a driver can take/handle is different among individuals according to their level of driving expertise. Since the increase of driving speed increases the amount of visual information to process, a driver may be able to expand their field of view only up to the point where the amount of visual information to process balances

All'aumentare della velocità aumenta la quantità di informazione visiva da processare.

# Velocità e capacità di rispondere agli imprevisti



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Sensory And Perceptual Processes



# **Toward a Theory of Visual Information Acquisition in Driving**

Benjamin Wolfe (D) 1, Ben D. Sawyer2, and Ruth Rosenholtz1

**Objective** The aim of this study is to describe information acquisition theory, explaining how drivers acquire and represent the information they need.

**Background** While questions of what drivers are aware of underlie many questions in driver behavior, existing theories do not directly address how drivers in particular and observers in general acquire visual information. Understanding the mechanisms of information acquisition is necessary to build predictive models of drivers' representation of the world and can be applied beyond driving to a wide variety of visual tasks.

**Method** We describe our theory of information acquisition, looking to questions in driver behavior and results from vision science research that speak to its constituent elements. We focus on the intersection of peripheral vision, visual attention, and eye movement planning and identify how an understanding of these visual mechanisms and processes in the context of information acquisition can inform more complete models of driver knowledge and state.

**Results** We set forth our theory of information acquisition, describing the gap in understanding that it fills and how existing questions in this space can be better understood using it.

Conclusion Information acquisition theory provides a new and powerful way to study, model, and

La velocità a cui si viaggia ha un impatto significativo sulla capacità di rispondere adeguatamente a eventi imprevisti.

# La relazione di attaccamento con i luoghi





NOSTALGIA

Tra le nubi ecco il turchind Cupo e umido prevale: Sale verso l'<u>Apennino</u> Brontolando il temporale. Oh se il turbine cortese Sovra l'ala aguidonar Mi volesse al bel paese Di Toscana trasportar!

Non d'amici o di parenti Là m'invita il cuore e il volto: Chi m'arrise a i di ridenti Ora è savio od è sepolto. Né dì viti né d'ulivi Bel desio mi chiama là: Juggirei da' lieti clivi Benedetti d'ubertà. De le mie <u>cittadi</u> ii vanti E le solite canzoni Juggirei: vecchie ciancianti A marmorei balconi! Dove varo ombreggia il bosco Le maligne crete, e al pian Di rei sugheri irto e fosco I cavalli errando van.

Lá in maremma ove <u>fiorio</u>
La mia triste primavera,
Lá rivola il <u>pensere</u> mio
Con i tuoni e la bujera:
Lá nel ciel nero librarmi
La mia patria a riguardar,
Poi co T tuon vò sprofondarmi
Tra quete colli ed in quel mar.
89 Settembre 1874



A ZACINTO-,

SONETTO.

No mai jois terchest he acres specule. Over it mis core faccinities garque, Zacinico mis, che te specchi solf onde Del green mar, de cui vergien narque Venene, e fine quell'islos fectorde. Cal sos primo entre, ofice one tarque Le sus timpides solds es toe frende Carlo sos primo estre, onde one tarque Le sus timpides solds es toe frende Carlo son primo estre, del carlo fatals, el li diverses esiglio, Per cui, bello di fatan e di revotarra, Bació la sua perirena litrac Ullime.
To non altre che il canto nevri del Ejio, O mottera mis terra a noi prosectione.

Nel momento in cui vi mise piede, provò quell'emozione di essere a casa che non aveva sentito nel suo paese natio, e si domandò perché l'odore del bar gli sembrasse più naturale dell'odore dei campi, e il rombare della strada gli desse un benvenuto più caloroso del silenzio sulla riva del lago.

GEORGE MOORE
NOSTALGIA DI CASA



Andre care on for great come colle.

2' enert en per de on tante parte

2' enert en perte

Det decement en perte

Me dotant e mirando, un interrognate

Nazio o la se quella, e verdurani

Merzi, e prefendicione quete

co on nel Mentier mi Fingo, ove per pero

# La relazione di attaccamento con i luoghi



- Forte valenza affettiva e intensa attivazione emotiva suscitata dai luoghi -> attaccamento.
- > Analogia tra attaccamento alle persone e attaccamento ai luoghi:
  - Ricerca di vicinanza, unicità e insostituibilità
  - Senso di perdita all'allontanamento (lutto da separazione)
  - Sentimento costante per tutta la vita
  - Influenza delle vicissitudini vissute nell'infanzia sui desideri e la ricerca in età adulta

# Fattori predisponenti l'attaccamento ai luoghi



- > Spazi pubblici sicuri e attraenti favoriscono l'attaccamento al luogo (Mantey 2015).
- Le caratteristiche fisiche dell'ambiente (capacità di «supportare» le attività di chi lo popola, in particolare economiche e ricreative) favoriscono l'attaccamento al luogo (Karsono & Wahid, 2015).
- > Spazi pubblici che supportano la socializzazione favoriscono lo sviluppo di «sense of place» e «place attachment» (Ujang et a., 2018).



# Walkability e attaccamento ai luoghi



Planning Research

# The Relationship between Walkability and Place Attachment and the Mediating Role of Neighborhood-Based Social Interaction



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La percezione di pedonabilità di un'area correla con l'attaccamento alla stessa.

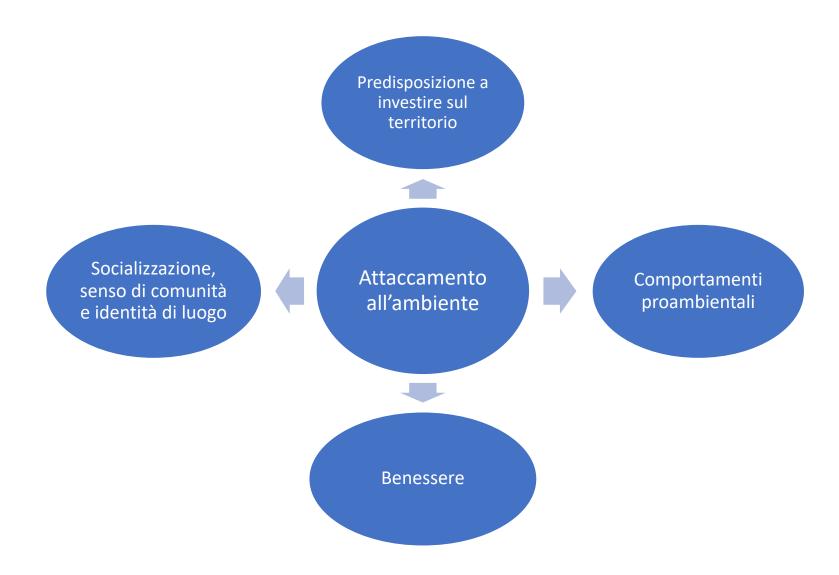
Pauline E.W. van den Berg<sup>1</sup>, Bojing Liao<sup>2</sup>, Steef Gorissen<sup>1</sup>, P.J.V. van Wesemael<sup>1</sup>, and Theo A. Arentze<sup>1</sup>

#### **Abstract**

This study aims to provide insights in the relation between neighborhood walkability and place attachment and the mediating role of (satisfaction with) social interaction. Both objective and perceived walkability are tested. To analyze these relations, two structural equation models are estimated on data collected among 251 residents of different neighborhoods across the Netherlands. The results show that perceived neighborhood walkability is a stronger predictor of place attachment than objective walkability. Perceived walkability has both a positive direct effect on place attachment and an indirect effect, via neighborhood-based social interaction. Objective walkability only has a positive direct effect on place attachment.

# Attaccamento al luogo: conseguenze





# Attaccamento ai luoghi, benessere e comportamenti proambientali



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**ORIGINAL ARTICLE** 

WILEY Journal of Theoretical Social Psychology

#### Place attachment influence on human well-being and general pro-environmental behaviors

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#### Abstract

People's relationship to their own living environment is a key issue for a deeper understanding of pro-environmental behaviors. How people perceive and experience a place may be a principal explanatory factor. Place attachment provides physical and psychological benefits to people and may have potential benefits for both human well-being and pro-environmental behaviors. If, the relationship between place attachment and place protective behaviors is confirmed, the relationship with general pro-environmental behaviors is unclear. Therefore, this paper aimed to fill the gap and to test the relationship between place attachment, well-being, and general proenvironmental behaviors with 212 inhabitants of Reunion Island. First, factor analyses were performed to observe the structure of William and Vaske scale (2003). Second, path analysis was performed to examine the relationship between place attachment well-being and general proenvironmental behaviors. Results revealed different links between general pro-environmental behaviors and each dimension of place attachment. Moreover, they highlighted the mediating role of well-being. The results suggest that place attachment is an important construct on which managers could focus on to improve well-being and quality of life and promote general proenvironmental behaviors among population.

L'attaccamento a un luogo influenza positivamente sia il benessere individuale sia il comportamento di cura e conservazione del luogo stesso.





## Grazie per l'attenzione

federica.biassoni@unicatt.it

https://progetti.unicatt.it/progetti-milan-psicologia-del-traffico-home