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# Variation in style

## Register and lifestyle in Parisian French

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This study presents a sociolinguistic analysis of two linguistic variables of French, subject doubling and subject-verb inversion in *WH*-questions. First, factor and cluster analyses led to a grouping of the sample into four distinct lifestyle types. Then, statistical tests show that lifestyle, gender, and age are significant external factors, and that lifestyle exhibits the most salient effect. While the lifestyle associated with orthodoxy correlates with a high inversion rate (formal linguistic style) and low doubling rate (informal linguistic style), the group associated with heterodoxy demonstrates the inverse pattern. It stands to reason that sociolinguistic studies can uncover more patterns of variation if they go beyond the standard sociodemographic variables (such as age, gender, etc.) and a 'narrow' concept of class.

**Keywords:** French, subject doubling, subject-verb inversion, *WH*-question, dialogue data, lifestyle, social class, norm, factor analysis, cluster analysis

### 1. Introduction

It is well-known that the operationalization of social class remains an important challenge in variationist sociolinguistics (Kerswill 2007). Sociolinguists mostly use single demographic or economic indicators such as neighborhood, education, income, occupation, etc., or rely on somewhat ad-hoc indices (e.g. the socio-economic class index in Labov 1966, 2001). While these measures capture certain basic elements of an individual's social position, they are far from reflecting a broader picture, for example in terms of social and cultural standing. The distinction between ruling and non-ruling classes includes many factors beyond economic and socio-demographic facts (this objection might even be more pronounced in some European societies as compared to North America).

One framework that addresses the social changes from early capitalist to post-industrialized Western societies is Bourdieu's (1979) sociocultural theory (see Bourdieu 1984 for the English translation). Essentially, Bourdieu argues that taste and lifestyle are key elements of social power, which leads him to postulate an extended, post-Marxist notion of (economic, social, and cultural) capital and an exchange mechanism between these different forms of capital. The notion of lifestyle and its embedding in a theory of capital combines micro- and macrosociological perspectives in an interesting way: a person's choices that reflect her/his taste, for example in the fields of leisure, media, clothing, and values, build her/his cultural capital, which translates into differences in terms of social and finally economic capital. In this chapter I will demonstrate the usefulness of this theory by considering two linguistic variables: subject doubling and subject-verb inversion, which are interesting test cases for the relation between linguistic style and lifestyle.<sup>1</sup>

## 2. Data

Sgs ([www.sgscorpus.com](http://www.sgscorpus.com)) is a multilingual sociolinguistic project started in 2004, which includes data from three Western- and Non-Western metropolises (essentially megacities): Paris (European French), Barcelona (Catalonia Spanish and Catalan), and Tehran (Persian). The data has been collected using the same protocol: first, spontaneous speech data was recorded in a specifically-designed game between interviewer and interviewee,<sup>2</sup> in which the interviewee had to solve a fictive murder case by speaking freely with the native and well-trained interviewer. Generally, interviewees chose a rather colloquial, non-formal register during this task. Unlike the classic sociolinguistic interview, which results in a mostly declarative set of sentences, this approach elicits both declarative and interrogative sentences from the interviewee. Second, the interviewees gave gradient acceptability judgments on selected constructions. Third, they filled out a sociocultural questionnaire, inspired by Bourdieu (1979: 599–605), and adapted to contemporary society in the respective metropolis. The present chapter relies on the recordings from Paris with 102 French native speakers, gender balanced (56% women, 44% men) in the age range 19–49 (average 29), which resulted in a corpus of 27 hours of transcribed and annotated speech.

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1. I want to thank Josina Gausepohl, who gave me valuable comments on the interpretation of the factors and the clusters and who proof-read the manuscript.

2. Spontaneous speech data was not collected for Catalan, which is not reported on here. Instead, a game task was conducted with the Catalan participants.

### 3. Subject-verb inversion in WH-questions and subject doubling in French

The first variable investigated in this chapter is subject-verb inversion in WH-questions. In syntax research, this word order has been called ‘stylistic inversion’ when co-occurring with an inverted non-pronominal subject as in (1a) (Kayne and Pollock 1978; Drijkoningen and Kampers-Manhe 2008), while it is often referred to as ‘subject-clitic inversion’ with an inverted weak subject pronoun as in (1b) (Auger 1994; Elsig 2009). (2) is the variant in which the interrogative pronoun remains in its canonical position (declarative word order) and which is considered as colloquial, (3) is the variant with the optional polar question particle *est-ce que*, and (4) is the variant without subject inversion, which is also considered as colloquial.

- |        |  |                         |
|--------|--|-------------------------|
| (1) a. | <i>où va ton mari?</i><br>where go your husband<br>‘Where does your husband go?’ | [WHVS <sub>lex</sub> ]  |
| b.     | <i>où vas -tu?</i><br>where go -you<br>‘Where do you go?’                        | [WHVS <sub>clit</sub> ] |
| (2)    | <i>tu vas où ?</i><br>you go where   | [WH-in-situ]            |
| (3)    | <i>où est-ce que tu vas?</i><br>where EST-CE QUE you go                          | [WH-ESQ]                |
| (4)    | <i>où tu vas?</i><br>where you go  | [WHSV]                  |

This study includes (1a) as well as (1b), the two of them are stylistically marked as formal interrogative variants.

Both elliptical or otherwise incomplete WH-questions, and questions with non-referential subject pronoun (mainly expletives) were excluded from the envelope of variation. The dependent variable is the relative frequency of subject-verb inversion (which consists of all tokens of WHVS<sub>clit</sub> and WHVS<sub>lex</sub>, i.e. variants (1a) and (1b)). It is calculated as in (5) for each interviewee *i*, taking into consideration all four interrogative variants productive in contemporary spoken French. Other forms such as clefts or so-called complex inversion that hardly occur in spontaneous speech (see also Elsig 2009), are not included. The total rate of subject inversion for the entire corpus is given in (6) and it builds on a total of 1477 extracted WH-questions. The low average frequency of 8% is in line with the formal stylistic value of the inverted variants. Given the normativity pressure in French (there is a long tradition of astonishing stigmatization of colloquial grammatical forms),

subject-verb inversion in WH-questions is a suitable sociolinguistic variable (for other studies on this variation, see also Druetta 2008; Elsig 2009; Coveney and Dekhissi 2013). Indeed the variable has even been used as a diagnostic for diglossia: based partly on well-known stylistic differences between French interrogative variants, French native speakers have been argued to be diglossic (Zribi-Hertz 2010) or even bilingual (Meisel et al. 2011).

$$(5) \quad h_{\text{WHVS}_i} = \frac{N_{\text{WHVS}_i}}{N_{\text{WHVS}_i} + N_{\text{WHinsitu}_i} + N_{\text{WHESQ}_i} + N_{\text{WHSV}_i}}$$

$$(6) \quad h_{\text{WHVStot}} = \frac{N_{\text{WHVStot}}}{N_{\text{WHVStot}} + N_{\text{WHinsitot}} + N_{\text{WHESQtot}} + N_{\text{WHSVtot}}} = \frac{112}{112+873+242+250} = 0.08$$

The second variable investigated is subject doubling. The dialogue fragment from sgs in (7) shows the variation between the simple weak subject pronoun (*elle*) and the sequence of adjacent strong and weak subject pronoun (*elle elle*).

(7) A: *la porte était entre-ouverte. Il y avait pas eu d'effraction.*  
 the door was half open. there had not been break-in.

B: *donc, a priori, elle l' a ouvert?*  
 so a priori she<sub>weak</sub> it has opened

A: *ouais, ouais.*  
 yeah yeah

B: *et elle elle était où?*  
 and she<sub>strong</sub> she<sub>weak</sub> was where

Doubling is generally considered to be colloquial. Subject doubling has been amply discussed in variationist studies (among others Nadasdi 1995; Nagy et al. 2003; Coveney 2005; Culbertson 2010; Zahler 2014), which have mainly concentrated on sentences with a lexical subject, with or without an optional coreferential weak pronoun, as in (8a).

(8a) *et la voisine elle était où?*  
 and the neighbour she<sub>weak</sub> was where

In the present study the decision to exclude lexical subjects and to concentrate on pronominal referents has been made, i.e. sentences with a weak subject pronoun, with or without an optional coreferential strong pronoun: (*moi*) *je*<sub>1sg</sub>, (*toi*) *tu*<sub>2sg</sub>, (*lui*) *il*<sub>3sg,masc</sub>, (*elle*) *elle*<sub>3sg,fem</sub>, (*nous*) *on*<sub>1pl</sub>, (*nous*) *nous*<sub>1pl</sub>, (*vous*) *vous*<sub>2pl</sub>, (*eux*) *ils*<sub>3pl,masc</sub>, (*elles*) *elles*<sub>3pl,fem</sub>. Circumscribed in this way, variable doubling in French is functionally similar to the much investigated variable subject pronoun in Spanish. This will allow cross-linguistic variationist studies (in future work).

Instances of doubling in which strong and weak subject pronouns are not adjacent as in (8b) have also been excluded. These cases require a different syntactic analysis (Culbertson 2010) and might not be variants of simple pronominal forms.

(8b) *et elle, hier soir, elle était où?*  
 and she<sub>strong</sub> yesterday evening she<sub>weak</sub> was where

Elliptical, fragmentary, or otherwise incomplete utterances were excluded. The dependent variable is again the relative frequency of pronominal subject doubling for each interviewee. The overall doubling rate in the entire corpus is 3%.

$$(9) h_{\text{doubl}_{\text{tot}}} = \frac{N_{\text{doubl}_{\text{tot}}}}{N_{\text{doubl}_{\text{tot}}} + N_{\text{simple}_{\text{tot}}}} = \frac{238}{238 + 7434} = 0.03$$

At first sight, one might ask whether the inversion and doubling rates are sufficiently high to be considered sociolinguistically relevant. However, these variants are markers that do not require higher rates to show consistent style effects. Furthermore, their frequency should not be underestimated either. Given that questions and subjects are frequent in everyday discourse, the low rate of the respective marked variants does not mean that they represent sparse, barely produced constructions.

#### 4. Lifestyle and Bourdieu's sociocultural theory

Theories of class were predominant among sociologists in western societies, most notably the class theory of Karl Marx. The lifestyle concept used in this chapter emerged from the shortcomings of the traditional notion of class which does not have the same explanatory power in postmodern societies as it had in continental European societies of the 19th century. Bourdieu's (1979) sociocultural theory has the merit of reconnecting social theories of inequality with cultural sociology.<sup>3</sup> One of the fundamental principles in Bourdieu's theory concerns the relation between the individual and society. The characteristics of the social structure shape collective representations and social classifications which, in turn, become manifest in *apparently* genuine individual patterns of personality, such as cultural preferences, judgments of taste, and lifestyle.

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3. More details of Bourdieu's theory (including on his predecessors, the nation of capital, as well as the concept of habitus) can be found in the web-appendix at <http://sociolab.phil-fak.uni-koeln.de/index.php?id=26329>.

Choosing according to one's tastes is a matter of identifying goods that are objectively attuned to one's position and which 'go together' because they are situated in roughly equivalent positions in their respective spaces, be they films or plays, cartoons or novels, clothes or furniture; this choice is assisted by institutions – shops, theatres (Left Bank or Right Bank [of the river Seine, which divides Paris]), critics, newspapers, magazines – which are chosen on the same principles and which, being defined by their position in a field, have to exhibit themselves distinctive marking. (Bourdieu 1984: 232) [revised translation, A.A.]

Bourdieu develops a system of sociologically relevant ways of cognition. He distinguishes between different perceptions and attitudes towards the environment on the one hand, and systematic forms of misperceptions on the other. He calls doxa ordinary, non-scrutinized schemas of thought, perception, and judgment which are typically perceived as natural. Bourdieu (1993: 51) describes them as “everything that goes without saying, and in particular the systems of classification determining what is judged interesting or uninteresting, the things that no one thinks worthy of being mentioned, because there is no *demand*”. Two other ways of perception, *orthodoxy* and *heterodoxy*, express deviation from the natural, non-scrutinized doxa. Orthodoxy stands for a systematic, scrutinizing and conscious cognition, claiming legitimacy and normativeness. Orthodoxy represents a conservative view based on a value system supporting and calling for normative agreement. Heterodoxy also presupposes a systematic, scrutinizing cognition. However, in this type of perception, the cognition is used to corroborate an alternative interpretation, opposed to the orthodoxy. It stands for the deviating, critical voice, which is, similarly to orthodoxy, capable of sophisticated judgment. Both orthodoxy and heterodoxy build on a sufficient amount of cultural capital and are therefore a privilege. A distinguished lifestyle representing special social position and success, contains a smaller proportion of doxa. The fine-grained differences between different forms of distinguished lifestyles decide whether distinction is primarily realized by orthodoxy, heterodoxy, or by a skillful, unique and therefore particularly individual combination of both ways of cognition. Bourdieu's close relation between class and lifestyle is expressed by the fact that in the Paris area of the late 1960s, he attributes orthodoxy primarily to social and cultural climbers, and heterodoxy to the established bourgeoisie. Both possess an aesthetical competence which builds on the knowledge of form and style.

The lifestyle dimensions used in the present study, namely leisure, media (consisting of the subdimensions book genres, newspapers, magazines, TV, music, internet, radio, preferred news sources), clothing, and values. Although I am aware that lifestyle has more aspects than these four dimensions (see Bourdieu 1979: 599–605), they represent core information on lifestyle which are presumably suitable for populations of numerous post-industrialized metropolises around the world.

## 5. Operationalization of lifestyle

The essence of the operationalization of lifestyle is a meaningful *data reduction* of the multitude of information encoded in the answers to the single items of the sociocultural questionnaire. Figure 1 summarizes the data reduction process.

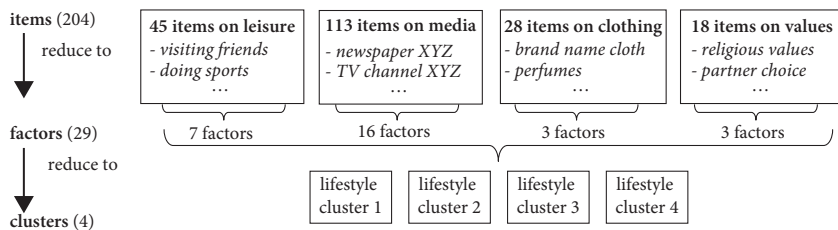


Figure 1. Data reduction of lifestyle

### 5.1 Data reduction

In a first step, four different factor analyses are calculated (one each for leisure, media, clothing, and values), reducing the original number of 204 lifestyle items to 29 factors. In a second step, these 29 factors are taken as the input for the cluster analysis. The rationale for data reduction is that it is not feasible to interpret the complex result pattern of 204 items and give equal importance to each item (if one was to interpret this complex result pattern, one would inevitably opt for a heuristic that would give emphasis to some elements while ignoring others). At the initial stage, each of the 102 subjects of the study is thus characterized by her/his answers on 204 questions. Mathematically, each subject is a (uniquely identifiable) point in a 204-dimensional (hyper)space.

### 5.2 Factor analysis

Factor analysis, also known under the label PCA, helps us to find a representation with which  $p$  variables can be expressed by  $q$  factors, with  $q < p$ . We obtain a result in which each subject is characterized by her/his values on 29 factors, i.e. s/he represents a point in a space reduced to 29.

Table 1 shows the interpretations of the factor analysis for leisure items. Leisure is a classic core element of lifestyle. It builds on very diverse areas like visiting friends, doing sports or engaging in political or social activities. Table 2 shows the interpretation of factor analysis for media items. They cover preferences for book genres, newspapers, magazines, TV programs (and video), music, internet,



radio, and speakers' preferred sources of information for daily news. The items on newspaper and radio constitute a selection of different, partly high circulation media. Media are granted a proportionally high weight in this operationalization: I assume that this weighting corresponds to a general social trend towards an increasing relevance of media preference for lifestyle. Table 3 resumes the interpretation of the factor analysis for clothing items. It is based on questions about the speakers' attitudes concerning clothing and fashion, on the functions of clothing, on expenses for selected accessories (such as perfume, underwear, shoes), and on preferred sources of supply. Finally, in Table 4 are the factors for value items. They cover criteria for partner choice, social perception regarding the social position of others, and religiosity.<sup>4</sup>

**Table 1.** Lifestyle factors for the leisure dimension

F1 leis.	Sociability and going out
F2 leis.	Activities promoting health, well-being and uplift
F3 leis.	Cultural, political, and intellectual (elite) activities
F4 leis.	Activities requiring low initial effort (e.g. eating fast food, sedentary activities) and fictional entertainment (games, computer, comics)
F5 leis.	Pastime activities with the family (mainly inside one's home)
F6 leis.	Relaxing during mental stimulation (especially reading)
F7 leis.	Internet-abstinent, practical/aesthetic pastime activities (e.g. handicrafts, theatre)

**Table 2.** Lifestyle factors for the media dimension

F1 med.	Entertainment on TV
F2 med.	Downloading documents/music, E-Commerce, and online information (Internet)
F3 med.	Political media (mainly newspapers)
F4 med.	Information-oriented, popular radio
F5 med.	Sports media
F6 med.	Mainstream music (radio)
F7 med.	Classical music and intellectual radio
F8 med.	Literature and art media
F9 med.	Sex and erotic media, computer game magazines, techno music
F10 med.	Free newspapers; satellite TV
F11 med.	Multiple news sources, independently syndicated radio and newspaper
F12 med.	Confidence in internet and foreign media; radio
F13 med.	Diversion and coziness (e.g. detective novels, women's magazine, decoration, talk radio)

4. Technical details on the selected factor and cluster solutions, one factor matrix (which served as the basis for the leisure factors) and some background on these techniques are given in the web-appendix at <http://sociolab.phil-fak.uni-koeln.de/index.php?id=26329>.

**Table 2.** (continued)

F14 med.	Orientation towards practical application and applied topics (e.g. economy, cooking, information technology)
F15 med.	Pop/rock/mainstream music
F16 med.	Trivial entertainment (TV shopping-channels, love (dime) stories, internet chat, music videos)

**Table 3.** Lifestyle factors for the clothing dimension

F1 cloth.	Fashion as a tool for distinction
F2 cloth.	Frequency of purchasing accessories (perfume, underwear, shoes, sun glasses)
F3 cloth.	Spending money for clothes and accessory

**Table 4.** Lifestyle factors for the values dimension

F1 val.	Obvious status symbols as an indicator for a person's social position (place of residence, appearance, furniture and decoration)
F2 val.	(Acquired) social status as criteria for partner choice (socio-economic status, education, common roots, beauty)
F3 val.	Religiosity

### 5.3 Cluster analysis

In the second step, cluster analysis finds the best possible grouping solution for the subjects according to the criterion of highest within-group homogeneity and highest between-group heterogeneity. It takes the (hyperdimensional) scatterplot consisting of 102 points in the 29-dimensional space and suggests a way of separating this scatterplot of points in a limited number of non-overlapping clouds, which are the clusters. Figure 2 shows a solution with the prototype of four clusters (i.e. the centers of the four clusters). Factor values that are clearly above or below the sample mean of 0 are characteristic features of a lifestyle cluster. For example, lifestyle cluster 2 shows a high value on the fifth media factor (F5 med.) which means that the persons belonging to this cluster are consuming sports media much more often than the sample average. Further details on the cluster analysis can be found in the web-appendix.

The first cluster consists of 22 persons and is interpreted as a lifestyle oriented towards social conventions and conservative values. The speakers rarely engage in activities requiring low initial effort or in fictional entertainment (F4 leis.), but prefer internet-abstinent, practical/aesthetic pastime activities (F7 leis.). They rarely use the internet for downloads, e-commerce, and online information (F2 med.),

which is probably also due to their low confidence in internet (and foreign media, F12 med.). Compared to the other clusters, this group spends most money on clothes and accessories (F3 cloth.) and shows a high religiosity (F3 val.). The mean age is 27, and the majority are women (82% women, 18% male).

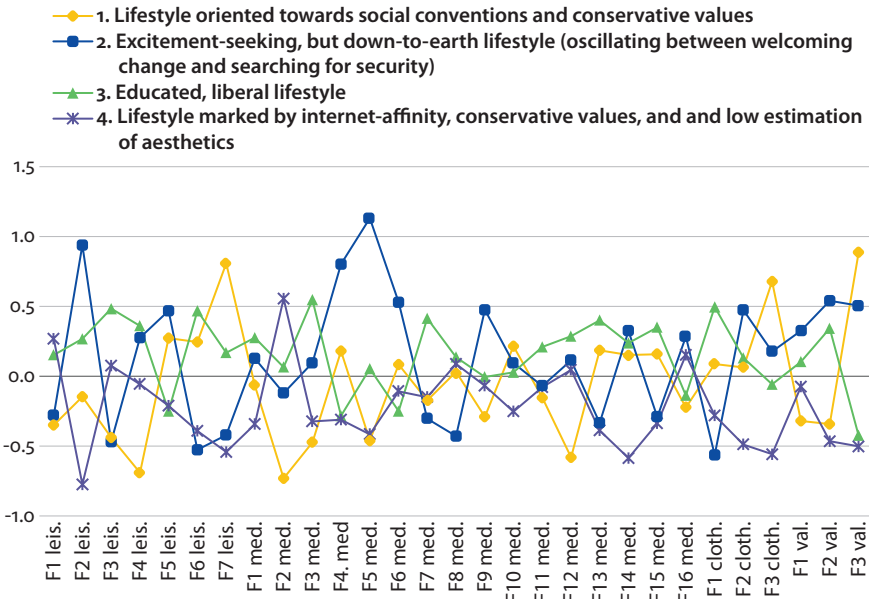


Figure 2. Four lifestyle prototypes based on the factor values

The second lifestyle cluster contains 18 persons and is interpreted as an excitement-seeking but down-to-earth lifestyle, oscillating between welcoming change and searching for security. Speakers in this cluster often engage in activities geared towards the promotion of health, well-being and uplift (F2 leis.), but are much less often involved in cultural/intellectual activities (F3 leis.) and activities that require low initial effort (F6 leis.). They often consume sports media (F5 med.) and listen to information-oriented popular radio (F4 med.) as well as mainstream music radio (F6 med.), but they stay away from literature and art media (F8 med.). These speakers frequently purchase accessories (F2 cloth.) but do not use fashion as a tool for distinction (F1 cloth.). They rely on (acquired) social status as criteria for partner choice and have an above-average religiosity. The mean age is again 27, but this time, the majority is made up by men (78% men, 22% women).

The third cluster contains 33 persons and exhibits an educated, liberal lifestyle. This group is the one which most often practises cultural, political, and intellectual (elite) activities (F3 leis.) and likes to relax during mental stimulation, especially by reading (F6 leis.). They also have the highest consumption of political media,

mainly newspapers (F3 med.) and classical music and intellectual radio (F7 med.). The speakers who make up this cluster clearly employ fashion as a tool for distinction (F1 cloth.) although they do not have higher than average expenses for clothes and accessories (F3 cloth). They are rather unreligious (F3 val.). In this cluster, we find the highest average age (mean value 33) and its gender distribution is balanced (56% women, 44% men).

Cluster 4 contains 29 persons and is interpreted as a lifestyle marked by internet-affinity and low estimation of aesthetics and conservative values. This subgroup rarely engages in activities geared towards the promotion of health, well-being and spiritual uplift activities (F2 leis.) and internet-abstinent, practical/aesthetic pastime activities, such as handicrafts or theatre (F7 leis.). They are much more prone to be involved in download, e-commerce, and online information (F2 med.) but rarely consume media oriented towards practical application and topics, such as economy, cooking or information technology (F14 med.). The speakers in this group rarely purchase accessories (F2 cloth.) and spend only little money on clothing and accessories (F3 cloth.). They do not rely on (acquired) social status and common points as criteria for partner choice (F2 val.) and they are not very religious (F3 val.). The average age of this cluster is 29 and it is relatively gender balanced (59% women, 41% men).

Reflecting these findings in the light of Bourdieu's sociocultural theory, the educated, liberal lifestyle (cluster 3) is the critical, deviant voice endowed with cultural capital and can be interpreted as the heterodoxy in the sense of Bourdieu (1993: 51). Based on commonplace stereotypes, it might seem that the lifestyle oriented towards social conventions and conservative values represents orthodoxy. However, in order to be part of this lifestyle group it does not suffice to have conservative values for being orthodox – as is the case for both the first and the fourth lifestyle group. Rather, mere orientation to social conventions and less scrutinized orientation towards conservative values represents the *doxa* (clusters 1 and 4), which in Bourdieu's (1993: 51/52) words: "What is most hidden is what everyone agrees about, agreeing so much that they don't even mention them, the things that are beyond question, that go without saying. [...] It is what informants don't say, or say only by omission, in their silences." The excitement-seeking, down-to-earth lifestyle (cluster 2) represents more clearly the orthodoxy pattern. These individuals are guardians of the norms. Their purpose and strategies of conserving the status quo are based, according to Bourdieu (1984: 426), on their incorporated characteristics of distinction and culture: "They have spontaneously the bodily hexis, diction and pronunciation to suit their words; there is an immediate, perfect, natural harmony between the speech and the spokesman".

Both orthodoxy (cluster 2) and heterodoxy (cluster 3) are privileged groups with a relative high level of cultural capital. The level of education of the persons

belonging to lifestyle 2 and 3 is on average one year above the persons belonging to lifestyle 1 and 4, and their revenue after taxes is also more than 200 Euro higher per month on average.

## 6. The effect of lifestyle and other social variables on inversion and doubling

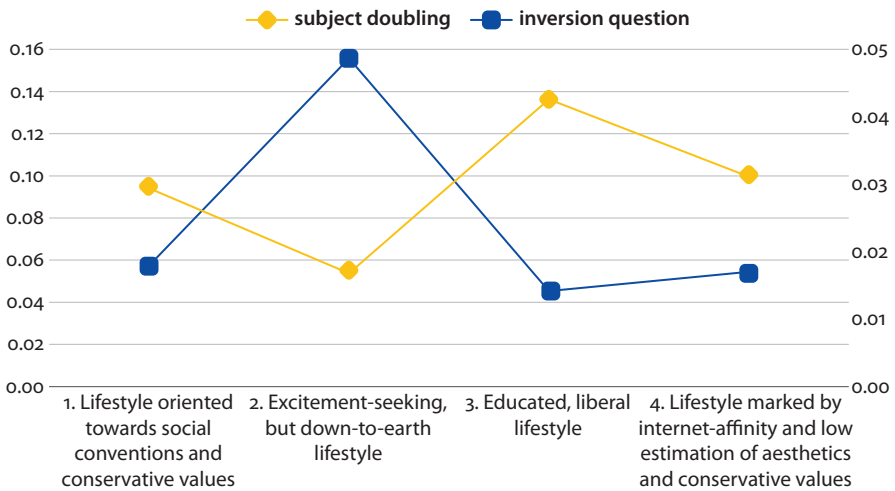
### 6.1 Statistical results

In order to choose meaningful values for the error probabilities  $\alpha$  and  $\beta$ , and the effect size  $\varepsilon$  for the given sample size, I calculated power analyses using G\*Power 3 (Faul et al. 2007). Balanced error risks have been employed with  $\alpha = \beta = 0.1$ , which allows for achieving an effect size in the range between medium and large.<sup>5</sup> In a first step, I calculated two one-way ANOVAs with lifestyle, two with gender, and two with occupational category. The occupational category was created by recoding the French office of statistics (INSEE 2003) output into 3 categories (i. farmer, intermediate occupation, employee or worker, to which  $n_1 = 29$  individuals belong, ii. executive, intellectual activity, trader or artisan, comprised of  $n_2 = 40$  individuals, iii. non-working, e.g. student but not retiree, comprised of  $n_3 = 28$  individuals). Two bivariate correlations (Pearson- $R$ ) were calculated with age (which is a metrical variable). Education, which has been measured in years of schooling/educational qualification, has been analyzed by two Kendall's  $\tau_b$  correlation tests for rank orders (because it is an ordinal variable).

**Table 5.** Results of inversion and doubling for five social variables (stars denote significance)

	inversion rate	doubling rate
Lifestyle	$p < 0.011^*$	$p < 0.09^*$
Gender	$p < 0.013^*$	$p < 0.918$
Occupation	$p < 0.860$	$p < 0.493$
Education	$p < 0.949$	$p < 0.239$
Age	$p < 0.779$	$p < 0.097^*$

5. Essentially statistical tests are conducted with parameters that ensure a plausible application of the test, avoiding for example scenarios in which one would not have had a reasonable chance to detect an existing effect due to high  $\beta$  error probabilities. More concretely, smaller error probabilities such as  $\alpha = \beta = 0.05$  would have led to an unacceptable loss in test sensitivity, and an uncontrolled  $\beta$  would have been unreasonably large at medium effect size. According to Cohen (1988: 284–288), medium effect size corresponds to  $f = 0.25$  and a large effect size to  $f = 0.4$ . The ANOVA with lifestyle (4 groups) can be calculated at  $f = 0.35$ , with occupation (3 groups) at  $f = 0.32$ , and with gender (2 groups) at  $f = 0.29$ .



**Figure 3.** Lifestyle with inversion rate (left y-axis) and subject doubling rate (right y-axis)

Table 5 reveals that lifestyle shows the clearest effects, correlating with both inversion rate and subject doubling rate. Gender is also significant for inversion since women tend to have a lower inversion rate (0.04) than men (0.1), i.e. they make less frequent use of this marker of formality. At the same time, age correlates with subject doubling, i.e. the speakers make more frequent use of this marker of informality with rising age (within the first half of life). Education and occupation alone, however, do neither have a significant effect on inversion nor on doubling.

Figure 3 illustrates the results separated by the four lifestyles. The left y-axis applies to the line for inversion questions and shows the inversion rate, the right y-axis applies to the line for subject doubling and shows the doubling rate.

## 6.2 Discussion

The representation in Figure 3 reveals a complementary pattern of inversion questions and subject doubling. Recall that I have interpreted the first and fourth lifestyle as the doxa, the second one as orthodoxy, and the third one as the heterodoxy in the sense of Bourdieu (see Section 4). These concepts allow for a consistent explanation of the different uses of inversion and doubling. The doxa clusters have a rather low inversion rate and a medium doubling rate. The orthodoxy cluster shows a high inversion rate and a low doubling rate. The heterodoxy cluster, finally, displays a low inversion rate and a high doubling rate. Doubling distinguishes between doxa, orthodoxy, and heterodoxy, while inversion distinguishes orthodoxy from the rest. Both variables together allow a clear distinction between the groups.

While the excitement-seeking, down-to-earth lifestyle (orthodoxy) defends the norms of standard French, refraining from doubling and making frequent use of the formal inverted interrogative variant, the educated liberal lifestyle (heterodoxy) does the contrary. These persons exhibit a behavior opposed to the norm, affirming the legitimacy of doubling and reducing inversion as a marker of formality. Heterodoxy requires, just as orthodoxy, sufficient possession of cultural capital. This means that this group is very well aware of the normative pressure of French language but does not bow to it. These speakers are precisely not linguistic dilettantes, but rather those who master the subtle and complex game of a distinctive linguistic style which builds on a skillful mixture of complex, advanced linguistic style which consciously includes simple style. This subtle game combines, according to Bourdieu (1991:63),

[...] confident relaxation and lofty ignorance of pedantic rules with the exhibition of ease on the most dangerous ground. Showing tension where the ordinary speaker succumbs to relaxation, facility where he betrays effort, and the ease in tension which differs utterly from petit-bourgeois or popular tension and ease: these are all strategies of distinction (for the most part unconscious) giving rise to endless refinements, with constant reversals of value [...].

The results reported here suggest that an approach that relies on Bourdieu's notions of lifestyle, cultural capital, orthodoxy, heterodoxy, and doxa, and submitting data with a sufficiently large sample to an analysis which operationalizes lifestyle is worthwhile. Overall, my analysis confirms the findings of a similar sociolinguistic study conducted in the Southern French metropolis Toulouse, in which lifestyle showed up as the most significant external factor (Adli 2013). The fact that neither education nor occupation were selected as significant variables in an ANOVA suggest that if the present study had been confined to the standard sociodemographic variable set and a concept of class of narrow meaning, we would not have found such salient patterns of variation.

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