Evidentiality ‘In’ and ‘As’ Context
Corpus-Based Insights About the Mandarin V-过 guo Construction

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Abstract  In this paper we argue that evidentiality can be a category of a linguistic system that emerges from the intersection between form, usage and ‘contextual situatedness’. We provide a multivariate corpus-based case study about the usage of the V-过 guo construction in written Mandarin, and show how the text types in which the chunk appears significantly contribute to determine its pragmatic usage and its emergent meaning grounded in shared knowledge and collective recognition. This approach sheds new light on two critical issues. The first is that evidentiality is an important grammatical category of documentary, factual and academic prose in Mandarin Chinese. The second, much broader, claim of this paper is that generalisations about grammatical/semantic categories need to account for the usage of specific items in context. In this sense, ‘physical and sociocultural situatedness’ is as important a dimension as form and meaning in order to define categorial membership.

Keywords  Chinese. Evidentiality. Context. Corpus-based. Multifactorial.

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1 Introduction

It has been pointed out that the Mandarin experiential marker 过 guo, originally expressing the past experience of a syntactic subject, has recently grammaticalised into an evidential construction (cf. Chappell 2001; Tantucci 2013, 2015a, 2015b, 2016c; Tantucci, Wang 2020b). In this study, we focus on the usage of V-过 guo in two comparable written corpora of Mandarin Chinese, namely the Lancaster Corpus of Mandarin Chinese (LCMC) (McEnery, Xiao 2004) and UCLA corpus of written Mandarin (Tao, Xiao 2012). The former includes texts from 1988 and 1992, whereas the latter includes texts from 2000 to 2005. Both corpora include one million words and are balanced with respect to the text types of which they are composed, so that they can be compared with one another. The aim of the present analysis is to shed light on the relationship between evidential reasoning and context and whether specific genres and textual environments favour the usage of evidential polysemies of V-过 guo. We are similarly interested in assessing whether the process of grammaticalisation of V-过 guo towards evidentiality is occurring at the expense of experiential usages of the same construct.

First of all, we can look at the formal and semantic differences between experiential and evidential usages of V-过 guo. Consider the two examples below:

1. 她的鼻梁很细，我从来没有看过人有这么细的鼻梁，因而反把她年轻的、瘦削的脸衬得丰满起来。 (LCMC / P: Romantic fiction)

   tā de  bí-liáng   hěn xì   wǒ  cónglái  méiyǒu
   see sp nasal-bridge very narrow I  never neg
   kàn-guo  rén  yǒu  zhème  xide  bí-liáng   yīn’ér  fān
   see-exp person have such narrow nasal-bridge thus turn
   bā tā  niānqīng  de  shòuxuēde  liǎn  chèn  de
   ba she young sp skinny face seem deg
   fēngmǎn  qīlái
   chubby become

   ‘The bridge of her nose is very thin, I have never seen anyone with such a thin one, and it makes her young, skinny face look chubby’.

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1 When Mandarin will be used in isolation, it will refer to present-day Mandarin (aka. currently spoken 普通话 pǔtōnghuà of Mainland China) throughout the present paper.

2 The glosses follow the general guidelines of the Leipzig Glossing Rules. Additional glosses include: BA = ‘ba construction particle’; DEG = ‘complement of degree’; EMP = ‘emphatic marker’; EVD = ‘evidential’; EXP = ‘experiential’; ST = ‘structural particle’.
In (1), the speaker is genuinely expressing some subjective/personal impression that directly underpins his/her own personal experience, namely that s/he normally has never seen a nose as fine as the one of the character that is being narrated. S/he is therefore establishing reference to his/her own subjective experience and personal impressions about a specific event or state of affairs. In Pragmatics, the notion of perlocutionary effects regards what a speaker intends an utterance to achieve in an addressee (cf. Austin 1962; Searle 1976). The perlocutionary effects of (1) are clearly not the ones of informing the reader of a piece of documented information, but most likely to share his/her emotional/sensorial experience and/or personal affects. Simply put, the usage of 过 guo in (1) cannot express a piece of collective knowledge (it cannot be marked by evidential functions such as it is known that, or as it seems), but only personal experience and related emotions resulting of the speaking subject as an individual.

The usage of 过 guo in (2) is rather different. In this case the syntactic subject of the sentence is inanimate, and the event that is reported has not been necessarily experienced by the speaker. A completely different speech act is performed in this case. The speaker is no more referring to his/her personal affects, or the ones of a syntactic subject. Rather, s/he is reporting or presenting (cf. Faller 2002; Tantucci 2016a, 2016b, 2016c) a piece of information that s/he has somehow acquired and which s/he could potentially provide evidence for. Interestingly, the text types in which these two usages occur also differ substantially. In the former case the narration occurs in a fictional context, and it is therefore more likely to be aimed to entertain or empathise with the reader. In the latter usage, the V-过 guo construction is used in academic prose and is functional to mark a
piece of information as a fact that can be considered as reliable and documented/documentable. Intersubjectively, we could say that usages such as (1) tend to be aimed at establishing empathy among interlocutors, whereas utterances of the kind of (2) aim to be persuasive and reliable. Finally, it is important to note that both contexts of usage in (1) and (2) do indeed require the post-verbal marker 过 guo and could not be uttered with an evidentially/experientially neutral perfective marker such as 了 le³ (Tantucci 2013, 225).

§ 2 provides an overview of the V-过 guo construction and its different usages. It also provides the operational criteria to disentangle experiential versus evidential senses. § 3 is based on a diachronic discussion about the grammaticalisation of the V-过 guo construction and the semasiological formation of different polysemies. The main case-study in § 4 is then centred on the relationship between evidential vs experiential usages of 过 guo and the text types in which they tend to occur. In particular, we will be focusing on the following research questions:

• What is the distribution in different text types of evidential versus experiential usages of V-过 guo?
• Have there been any significant changes in the partition of usages of V-过 guo in the last thirty years?
• What is the relationship between the different senses of V-过 guo and the textual environment in which they occur?

2 The Mandarin V-过 guo Construction

In the literature, V-过 guo is commonly considered as a polysemous construction. It can express directionality (e.g. Li, Thompson 1981; Chen 2008), therefore emphasising the actional (i.e. underpinning Aktionsart, see Vendler 1967) movement in space of dynamic verbs, as in 拿过 náguò ‘to take/seize’, 走过 zǒuguò ‘to walk towards a certain direction’, 递过 dìguò ‘to hand over’, and others (Tantucci 2015a, 69). It can express completivity (cf. Bybee, Perkins, Pagliuca 1994, 51; see also Dahl 1985, 95 on conclusives) or traversativity (Tantucci 2015a), thus describing the phasal meaning of “do[ing] something thoroughly and to completion”, as conveyed by expressions such as to shoot someone dead or to eat up. The “lexical sources of completives [...] are all dynamic verbs or directionals, as they all suggest action or movement” (Bybee, Perkins, Pagliuca 1994, 59). They are actionally durative, as in 吃过 chīguò ‘to finish eating’ or 看过 kānguò...
'to end up watching'. In example (3) below, V-过 guo expresses that the action of eating the noodles has been completed or ‘traversed’ (Tantucci 2015a) so that a second action could be carried out or not.

3. 吃饭时没留意窗外，吃过一碗刀削面走出小饭馆。(UCLA / G: Biography memoirs)
chi-fan shi mei liuyi chuang wai chi-guo yi
eat-meal while neg pay.attention window outside eat-compl one
wan daoxiaccomian zou-chu xiao fanguan
bowl noodles walk-out small restaurant
‘I did not pay attention to the outside of the window while eating; I finished a bowl of noodles and walked out of the small restaurant’.

These particular usages of V-过 guo do not contribute to the illocutionary force of the utterance, as they merely intervene lexically on the Aktionsart (Vendler 1957) – elsewhere alternatively called lexical aspect (Olsen 1997), transformativity (Johanson 2000) or situation aspect (Smith 1997) – of a verbal compound [VV]. Simply put, it only marks the temporal constituency or the internal phase structure IPS (Johanson 2000) of a predicate, i.e. whether an action has been brought to completion or to some resultant state.

A third function of V-过 guo is the “experiential perfect” usage (Comrie 1976, 58; Li, Thompson 1981; Dahl 1985, 141; Carey 1994; Yeh 1996; Dai 1997; Smith 1997; Dahl, Hedin 2000; Xiao, McEnery 2004; Lin 2006, 2007; Chen 2008; Wu 2008), whereby the construction indicates the past experience of the syntactic subject, as in example (1) (§ 1) or in expressions such as 我去过北京 wǒ qù guo Běijīng ‘I have been to Beijing before’, see also (4) below:

4. 或许林徽因的心情也是这般，从来没有固执地想过要什么，也没有刻意去拒绝什么。[UCLA / G: Biography memoirs]
huoxu Lin Huiyin de xinqing ye shi zheban conglaizi
perhaps Lin Huiyin sp mood also be like.this never
meyou guzhide xiang-guo yao shenme ye meiyou
NEG stubbornly think-exp want what also not
ekui ju juxue shenme
deliberately go refuse what
‘Perhaps Lin Huiyin’s mood is also like this; she never stubbornly thought about what she wanted, nor did she deliberately refuse anything’.

4 In Mandarin, both directional and completive usages of 过 guo retain the fourth tone, whereas more grammaticalised forms tend to be toneless. The pinyin notation of the rest of this paper will account for this distinction.
In (4) above, the function of V-过 guo is no more the one of expressing that a durative event has been completed, but rather to convey that the animate subject of the sentence, 林徽因 Lín Huīyīn, has never experienced a particular feeling, namely the one of being obstinate in wanting something. Table 2 below provides the diagnostics for identifying experiential usages of V-过 guo:

**Table 1** Diagnostics for identifying 过 guo as an experiential (adapted from Tantucci 2015a, 87)

| 过 guo as an experiential |
|--------------------------|
| Profiles the syntactic subject’s past experience. |
| Employed as a perfect in contexts where the syntactic subject has been through some experience before. |
| Frequently used with dynamic verbs. |
| Used generally in the first person, in negated statements or in second person questions (Dahl 1985; Dahl, Hedin 2000; Tantucci 2013). |
| It cannot collocate with the perfective post-verbal 了 le.* |
| It can collocate with the adverbials 曾经 céngjīng ‘once’ or 从来 cónglái ‘never’. |
| It cannot collocate with inanimate subjects. |
| It can collocate with absolute-state predicates (rare). |
| Not felicitous when collocating with IE adverbials such as 据了解 jù liǎojiě ‘it is understood that’, 好像 hǎoxiàng ‘apparently’, 众所周知 zhòngsuǒzhōuzhī ‘as everyone knows’. |

* This is a diagnostic that helps distinguishing comparatively more grammaticalised usages of 过 guo (e.g. experiential and evidential) from cases where 过 guò is used as a completive or a directional complement, such as in 该联络的事宜都联络过了 gāi liánluò de shìyí dōu liánluò guò le ‘all the arrangements that required contacts where dealt with’ (LCMC / E14).

In Tantucci (2013; 2015a), it is also argued that 过 guo developed a more grammaticalised function underpinning knowledge ascription and evidentiality. At this stage of change of 过 guo, the notion current relevance for the here-and-now of the conversation underpins a presentative stance rather than an assertive one (Faller 2002). That is, while an assertive speech act has the sincerity condition that the speaker believes P and is unmarked with respect to its reliability, in the case of presentative utterances the speaker/writer merely ‘introduces’ a piece of knowledge s/he acquired somehow for the benefit of the addressee/reader. In this latter case, the speaker/writer marks the proposition as a piece of information that is somewhat ‘reliable’ and which can be potentially documented/confirmed. While experiential usages of 过 guo tend to occur in questions and in negative statements, evidential ones show a tendency to occur assertively, in the declarative mood (Tantucci 2013, 2015a; Tantucci, Wang 2020b). This functional and formal tendency is due to the presentative illocutionary force of evidential statements, and the fact that the perlo-
cutionary effects of _TERMINATED are distinctively the ones of informing a specific or generic addressee, rather than expressing subjective affective concern or empathy to the interlocutor. As a result, evidential usages of 过 末 tend to occur in the third person or in impersonal/subjectless constructions (Tantucci 2013, 2015a).

5. In the academic context of example (5) above, no experiential meaning is at issue. The author is not interested in sharing his/her own or someone else’s past experience with the reader. Rather, s/he purposely marks the proposition as a piece of knowledge that bears some sort of social recognition and which can be potentially confirmed and verified. In other words, a different ‘pragmeme’ is at play, viz. a different “situational prototype capable of being executed in the situation” (Mey 2001, 221). In this paper, we will argue that “contextual situatedness” (cf. Mey 2010; Haugh 2012) is a fundamental dimension that inherently informs meaning, and in particular contributes to determine the polysemic status of the 过 guo construction. In Pragmatics, it is stressed that the physical and cultural environment plays a fundamental role in the encoding of the illocutionary force of an utterance. In other words, speech acts “in order to have an effect, must be situated” (Mey 2010, 2883; Capone 2005; Tantucci 2016c). The different intersection between contextual situatedness and illocutionary force that we find in (5) above determines a distinctive evidential reading of the utterance. In fact, in the same context, the merely perfective marker 了 le would not be idiomatic (to some degree not grammatical), as it would lack added evidential meaning that marks the proposition as a piece of ‘documented’ evidence, which bears collective recognition (‘出现了浪漫主义的“叛乱” chūxiàn le làngmànzhǔyì de pànluàn’) (Tantucci 2013, 255). In table 2 below, we report the formal and functional diagnostics for identifying evidential usages of V- 过 guo:
Table 2  Diagnostics for identifying 过 guo as an interpersonal evidential (IE) (adapted from Tantucci 2015a, 88)

| 过 guo as an evidential                          |
|------------------------------------------------|
| Profiles the speaking subject’s (Benveniste [1958] 1971; Traugott 2003; Langacker 2008) acquired information. |
| Employed in contexts characterised by an epistemic or presentative stance (Mushin 2001; Faller 2002), that is, the speaker/writer markedly ‘introduces’ a particular piece of knowledge s/he has acquired somehow. |
| Frequently in third person declaratives. |
| It cannot collocate with the perfective post-verbal 了 le. |
| It can collocate with the adverbials 曾经 cêngjing ‘once’ or 从来 cóngláî ‘never’. |
| It can collocate with inanimate subjects. |
| It can collocate with absolute-state predicates (rare). |
| Felicitous when collocating with IE adverbials such as 据了解 jù liǎojiē ‘it is understood that’, 好像 hǎoxiàng ‘apparently’, 众所周知 zhòngsuǒzhōuzhī ‘as everyone knows’. |

* This indicates that 过 guo reached a grammaticalisation stage where it can express aspectual discontinuity or anti-resultativity (e.g. Plungian, van der Awer 2006; Tantucci 2015a), which in turn is not possible for completive and directional usages of the same form.

** This is an important diagnostic as what is at issue in evidential usages is a piece of documented and/or socially recognised information, rather than the subjective experience of an individual. Impersonal usages (absent at earlier stages of the grammaticalisation of 过 guo) are an important sign of this shift, as the absence of a syntactic subject is precisely due to the attempt to communicate what has accordingly happened, rather than what has been once experienced by someone, i.e. the syntactic subject of the sentence (Tantucci 2015a, 91).

Evidentiality has been defined as “the existence of a source of evidence for some information” (Aikhenvald 2004, 1), the “encoding of the speaker’s type of grounds for making a speech act” (Faller 2002, 2), or the communication of a piece of “acquired knowledge” (Tantucci 2013, 214). Evidentials relativise or measure the information status of the sentence (Rooryck 2001a, 125; 2001b), yet in many languages, such as English, do not constitute a grammatical category and are generally communicated through adverbials or discourse markers such as apparently and allegedly (see Mushin 2001, 54; Narrog 2009, 10), predicates conveying an evidential meaning such as it seems that, it appears that, and I saw that, pragmatic strategies (see Aikhenvald 2004), or overtly expressed contextual elements providing some type of information. In our view, in languages where evidentiality does not correspond to a distinctive inflectional category, it is precisely the intersection between form, usage, and context that define an evidential reading. Similarly, it could also be argued that, even in languages where evidential systems are highly complex and grammaticalised (e.g. mostly spread through Northern, Central America, Eastern Europe, central and Southeast Asia; Aikhenvald 2004, 303), there is still a crucial intersection between contextually situatedness and usage of
those forms (see for instance the hybrid case of Gitksan evidentials, which are entirely optional and not paradigmatically organised; Peterson 2010). The inherent relationship between contextual situatedness and formal usage of some evidentials is an argument that has been put forward by Squartini (2012) in the discussion of the subcategory of circumstantial evidentiality, but also by Capone (2005; 2010) and Tantucci (2016c) concerning the crucial role of physical and sociocultural context for the encoding of so-called ‘evidential pragmemes’.

A crucial dimension that is missing from the classification in table (2) above is therefore the one of ‘contextual situatedness’ of the V-过 guo construction. That is to say, the diagnostics that are reported in each table take into account formal and functional elements of usage, yet they overlook the textual and sociocultural environment of each polysemy. In this sense, a multivariate corpus-based analysis can shed important light on the holistic relationship between form, illocutionary force and context. Significant intersections of the variables subsumed by formal, pragmatic and contextual dimensions are referred to as i llocutional concurrences (IC) (Tantucci, Wang 2018, 2020a, 2020b; Formato, Tantucci 2020). Namely, ICs encompass converging factors at different levels of verbal experience that contribute, both locally (i.e. at the morphosyntactic level) and peripherally (i.e. at the illocutionary level), to the encoding of contextually and culturally situated speech acts. The final discussion of this paper will be devoted to the inherent relationship between contextual situatedness and schematic categorisation of form and meaning. A specific focus will be placed on the interdependence of conventional association of linguistic functions and the situation type in which they are used as an important factor of semantic and grammatical change.

3 The Grammaticalisation of V-过 guo

In this brief section, we discuss the importance of context in the diachronic reanalysis of V-过 guo as an evidential construction. This claim will be further discussed in § 4, where we will provide a detailed multivariate analysis of the synchronic usage of V-过 guo in the LCMC and the UCLA corpora of Mandarin Chinese.

During the 唐 Tang dynasty (618-907 AD), 过 guó starts to occur in the second slot of [vv] constructions with a specific completive/traversative meaning (Cao 1995, 38), therefore expressing lexically the phase where an action has been completed/traversed. Different from early directional usages, this new function collocates with durative verbs that do not necessarily express physical movement:
6. 每至义理深微常不能解处，闻醉僧诵过经，心自开解。（纪闻 Jìwén, 太平广记 Taipíng guǎngjì, 异人异僧释证卷 Yìrén yìsēng shìzhèng juàn, 第 dì 81-101 卷 juǎn, Cao 1995, 38）

每至义理深微常不能解处，闻醉僧诵过经，心自开解。

Every time the argumentation would become too difficult and mysterious, all the parts that s/he could not comprehend would then become clear after s/he listened to that drunk monk reading through them'.

From (6) above, we can see that 过 guò now starts to convey completivity/traversativity, as it marks the phasal meaning of completing/traversing an action, rather than marking a syntactic subject’s past experience. Cao notes that during the Tang dynasty the phasal meaning of 过 guò merely indicates the action itself, and never stresses the subsequent results of the event […] this is evident from the missed co-occurrence with resultative verbs such as 关 guān ‘to close’, 锁 suǒ ‘to lock’, 盛 chéng ‘to fill’ or absolute states such as 老 lǎo ‘be/grow old’, 冷 lěng ‘to be cold’, 红 hóng ‘to be red’, 白 bái ‘to be white’ and others. (1995, 40)

A possible operational model that can inform the stages of semantic and grammatical change of V-过 guò is the Invited inferencing theory of semantic change (IITSC) (Traugott 1999; Traugott, Dasher 2002, 5; see also Dahl 1985, 11). IITSC states that inferences pragmatically induced from the speaker/writer to the addressee/reader tend to become conventionalised and determine new semantic polysemies within a construction. In a subsequent stage of reanalysis, due to its semantic element of discontinuity to the present, the V-过 guò construction starts to be encoded as a perfect with a conventionalised meaning expressing past-experience of an animate subject. Earliest evidence of this is found between the Tang and the Song (960-1279 AD) dynasties whereby 过 guò starts to collocate with mental verbs or verbs referring to the syntactic subject’s past experience, as in the case of 尝 cháng ‘to taste’, 验 yàn ‘to experience’, 问 wèn ‘to ask’ (Lin 2004, 45), albeit it is not frequently used before the Yuan dynasty (1271-1368 AC) (Cao 1995, 43; Lin 2004, 42):

5 Translated and readapted from Chinese. Unless otherwise indicated all translations are by the Authors.
In the case of (7), 过 guo no longer simply intervenes on the Aktionsart of the predicate on a lexical level. It has now developed a new grammaticalised function of experiential perfect (e.g. Comrie 1976). It therefore expresses current relevance of a previous experience occurring in a vague, discontinuous past. The bulk of the literature focusing on the aspectual features of 过 guo is distinctively focused on this particular usage. The main aspectual features of the experiential V-过 guo that emerge from the literature are the following:

a. It marks an eventuality having at least one occurrence in the past.

b. It has a ‘class’ meaning, viz. refers to an event type, rather than a specific instantiation.

c. It expresses aspectual discontinuity to the present/or a reference time.

d. It encodes only repeatable eventualities.

e. It marks an event that is temporally independent from others in the discourse.

f. It expresses a past eventuality often in the form of someone’s past experience (e.g. Chao 1968; Li, Thompson 1981; Yeh 1996; Dai 1997; Smith 1997; Lin 2006, 2007; Wu 2008; Li 2011).

In experiential usages of V-过 guo, the original actional meaning of ‘having been through an action’ that was originally encoded on a lexical level, has now turned into a more speaker-based meaning whereby some animate subject’s past experience becomes at-issue for the here-and-now of the speech event.

While both completive or resultant states are attested to be common lexical sources of perfects (i.e. resultative, hot-news, existential, experiential meanings; see McCawley 1971; Portner 2003; Dahl, Hedin 2000), in the case of 过 guo, aspectual discontinuity and ‘absence’ of results are themselves the trigger of specifically experiential and subsequent evidential reanalyses of the chunk: i.e. 我年轻过 wǒ niánqīng guo ‘I have been young (albeit I am not anymore)’ (see Comrie 1976; Carey 1994; Dahl 1985; Dahl, Hedin 2000; Chappell 2001; Li 2011; Tantucci 2013 for specific discussions about the typological features of experiential perfects).
It is acknowledged that experiential and existential perfects express relevance to the present without expressing a resultative continuation of the past event up to the moment of speech. This is the case of a well-known example:

8. The Earth has been hit by giant asteroids before. (Portner 2003, 464)

Usages involving a discontinuous past such as (8) show that relevance needs to be intended as having a primarily discursive nature, rather than having to do with the actionality or some temporal/physical contiguity/continuity of the event to the utterance time. Most crucially, Portner notes that the experiential and existential perfects of the kind of (8) “provide evidence for something, not that it indicates any results” (2003, 464; cf. Rubovitz 1999 about the semantic-pragmatic correspondence between existential/experiential perfects and evidential reasoning).

The notion of discontinuity to the present becomes an important element of further semantic and grammatical reanalysis of V-过 guo. At this point in time, invited inferences being conveyed by the speaker/writer can be semantically and pragmatically associated with some reliability behind the proposition, whereby the truthfulness of \( p \) becomes markedly “at-issue” (Faller 2002; Tantucci 2016a, 2016b). In fact, due to the inherent anti-resultativity of the construction, an event marked with 通过 guo is necessarily communicated either in the form of personal experience or as a piece of interpersonally shared knowledge (Tantucci 2015a). Crucially, earliest usages of V-过 guo as an experiential perfect seem to be limited to collocations with animate subjects, mental verbs or verbs profiling the syntactic subject’s personal experience in the past (Cao 1995; Lin 2004; Liu 2009, 231). However, Tantucci (2013, 224-5; 2015a) notes that during the Qing dynasty (1644-1912 AD) V-过 guo undergoes a new stage of semantic and grammatical reanalysis. This is a stage where V-过 guo collocates with subjectless or impersonal constructions with a new interpersonal evidential (IE) meaning. At this stage, V-过 guo is no longer used to mark an event in the form of an animate subject’s passed experience, but rather as a piece of knowledge shared by the speaker/writer together with a generic third party in society. Tantucci (2013, 2015a) notes that this trend is confirmed by the rise of the subjectless construction 发生过 fāshēng-guo ‘it happened before that’, as the valency of 发生 fāshēng in Mandarin normally does not include an experiencer. Earliest collocations of this verb with 通过 guo are a clear sign of new evidential reanalysis of the chunk. Something similar is at stake for the verb 有 yǒu ‘to exist, to be there’, expressing an existential meaning rather than a possessive one. Early evidential usages of 有过 yǒu-guo ‘there has been before’ in the PKU-CCL-COR-
PUS\(^6\) also date back to the Qing dynasty:

9. 这一天城里的街道,居然也打扫干净了,只怕从有上海城以来,也不曾有过这个干净的劲儿。
   (CCL / 清 Qing / 二十年目睹之怪现状 èrshínián mùdū zhī guìxiànzhuàng)
   zhè yì tiān chéng lǐ de jiē dào jūrán yě dǎsǎo-gān jìng le zhǐ pà cóng yǒu Shànghǎi
clean-up.clean only be.afraid since exist Shanghai
chéng yǐlái yě bùcéng yǒu-guo zhè ge gān jìng de city since also never exist-EVd this clf clean sp
jīn’er
degree/energy
   ‘On this day, streets in the city had unexpectedly been cleaned thoroughly; I am afraid since the existence of Shanghai, the city has never been this clean’.

In example (9), there is not an animate syntactic subject to which some past experience is ascribed. The speaker/writer is similarly not referring to his personal life, as s/he cannot have experienced the full history of the city of Shanghai. S/he is rather referring to a piece of information that could be confirmed by other members of his/her own community of practice, thus expressing a proposition bearing collective recognition (cf. Searle 2010). Usages such as the one above are defined as interpersonal evidentials (IE) since,\(^7\) as while no specific source of evidence is encoded by the construction, a piece of information is marked as shared knowledge within a community of practice, ideally paraphrasable as *it is known that*. After the 民国 Mínghuó period (1912-1949), the PKU-CCL-CORPUS includes a fairly balanced collection of texts, which is no longer limited to fictional registers, but also includes factual prose from press, academic journals and biographies. In Tantucci (2015a), it is shown that it is precisely in these textual environments that evidential usages of V-过 guo become increasingly frequent. From (9) above, we can observe that it is precisely the anti-resultativity of V-过 guo that

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\(^6\) The PKU-CCL-CORPUS is one of the largest corpora of Mandarin Chinese available and includes both a balanced synchronic and a diachronic section of written language. The total size of corpus data is approximately 200 million Chinese characters. Texts written in traditional Chinese in PKU-CCL-CORPUS contain approximately 101 million Chinese characters (486 documents, 54 folders, 202,305,825 bytes), and the texts written in modern Chinese contain 115 million Chinese characters (157 documents, 23 folders, 229,700,435 bytes).

\(^7\) E.g. Tantucci 2013, 2015a, 2015b, 2016a, 2016c, 2017a, 2017b, 2020; Tantucci, Wang 2020a; Arslan et al. 2014; Jarque, Pascual 2015; Brugman, Macaulay 2015; Guardamagna 2017; Van Olmen 2019.
prompts further speculations concerning the evidence behind the proposition. In this sense, all the evidence that is provided subsequently is pragmatically aimed at filling a ‘temporal gap’ between the event and the reference time.

The diagram below summarises the present data about the grammaticalisation pathway of the V-过 guo construction:

As we can see from figure 1, a first step towards the grammaticalisation of V-过 guo is the transition from meaning expressing directional-ity of actions in space to a new aspectual meaning (completive/traversative) expressing that some action has been completed or ‘traversed’ by an animate subject [fig. 1]. This is an important stage of change of the construction, as the event is never conceptualised as entailing a resultative state. This element of anti-resultativity becomes crucial for further stages of change, as it persists (cf. Hopper 1982) in later usages conveying past experience of an animate subject. Anti-resultativity, in connection with discursive current relevance, contributes to express that an event has been experienced by the subject in a vague past, without specific reference to when this happened. Usages of the construction in the third person or in impersonal contexts contribute to a new evidential reading of the events that are referred to. In Fludernik, a distinction is made between “natural narrative proper” and “retelling of other people’s stories” (2006, 14). The crucial grammatical distinction between the two consists in first-person versus third-person narration (Norrick 2013a). Norrick notes that differences in first-person versus third-person narration underpin idiosyncratic features of the two types of narratives in relation to their form and function. They reflect differences in terms of teller perspective, story introduction, epistemic authority, and function (Norrick 2013a, 2013b). Frequent third-person-shift and impersonal usages are here considered as a very important factor contributing to the rise of novel interpersonal evidential polysemies of V-过 guo. Formal features as such, intersecting with specific text types and ‘contextual situatedness’, holistically affected the last stage of grammaticalisation of the construction from experienceriality to interpersonal evidentiality.
4 A Corpus-Based Account of V-过 guo in Context

In this section, we provide the results of a corpus-based study from two synchronic corpora of Mandarin Chinese:

- the synchronic Lancaster Corpus of Mandarin Chinese (LCMC) (McEnery, Xiao 2004), a one-million-word balanced corpus designed as a Chinese match of the Freiburg-LOB Corpus of British English (FLOB), including texts from the years 1988 and 1992.
- The UCLA corpus of written Mandarin (Tao, Xiao 2012), also a one-million-word balanced corpus, designed as a match of the LCMC, including texts from 2000 to 2005.

The partition of texts of the LCMC is reported in the table below:

Table 3 Text types of the LCMC

| Code | Text category                        | Samples | Proportion |
|------|--------------------------------------|---------|------------|
| A    | Press reportage                      | 44      | 8.8%       |
| B    | Press editorials                     | 27      | 5.4%       |
| C    | Press reviews                        | 17      | 3.4%       |
| D    | Religion                             | 17      | 3.4%       |
| E    | Skills/trades/hobbies                | 38      | 7.6%       |
| F    | Popular lore                         | 44      | 8.8%       |
| G    | Biographies/essays                   | 77      | 15.4%      |
| H    | Miscellaneous                        | 30      | 6%         |
| J    | Science                              | 80      | 16%        |
| K    | General fiction                      | 29      | 5.8%       |
| L    | Mystery detective fiction            | 24      | 4.8%       |
| M    | Science fiction                      | 6       | 1.2%       |
| N    | Martial arts fiction                 | 29      | 5.8%       |
| P    | Romantic fiction                     | 29      | 5.8%       |
| R    | Humour                               | 9       | 1.8%       |
| Total|                                      | 500     | 100%       |

With this survey we aimed at answering three research questions:

- What is the distribution in the two corpora of evidential versus experiential usages of V-过 guo?
- Have there been any significant changes between the 1990s and the beginning of the 21st century in the partition of usages of V-过 guo?
- Is there a relationship between the formal and functional categories of V-过 guo and the textual environment in which it occurs?
4.1 Data Retrieval and Annotation

To answer each question it was necessary to design a solid annotation scheme that could grant a high inter-rater reliability (85%). We took into account a number of formal, functional and contextual dimensions, so that we could gather a holistic understanding of the behavioural profiles (cf. Gries 2010) of the construction. We therefore focused on: whether the polarity of the sentence was negative or positive; the corpus in which the chunk appeared; the verb (both as a token and as a type) collocating with 过 guo; the text-type where the V-过 guo was used; whether sentence final particles were present in the utterance; the type of the location of the force of each usage; the person of the verb (e.g. first singular, 3rd plural, and so on); and whether the function was evidential rather than experiential. The function of the construction was also the dependent variable of our analysis, and was based on the assessed set of criteria given in tables 1 and 2, in § 2. In table 4 below is given an example of one string of annotation:

Table 4  Example of an annotated string of the usage of V-过 guo in the LCMC and UCLA

| Function | Person | Verb | Verb_type | Ill_force | Sent_final | Text_type | Corpus | Polarity |
|----------|--------|------|-----------|-----------|------------|-----------|--------|----------|
| Evid     | 3s     | 说   | say       | asser     | N          | B         | LCMC   | P        |

The utterance in table 4 has been annotated as an evidential usage, in the third person singular, collocating with the verb 说 shuō, which is a verb of saying (annotated as ‘say’). The illocutionary force of the utterance is assertive, it does not include sentence final particles, the text type corresponds to Press-editorials [tab. 3], the corpus in which it occurs is the LCMC and the polarity of the sentence is positive.

We retrieved all the usages including verbs with the highest MI³ score from both the LCMC and the UCLA. Mutual Information (MI) expresses the extent to which observed frequency of co-occurrence differs from expected frequencies. It measures the strength of association among specific words or word types (in our case the strength of association of 过 guo with a preceding verb). The MI³ score is used to rebalance MI score so as to give more weight to frequent words and less to infrequent words, by ‘cubing’ observed frequencies (cf. Oakes 1998, 171-2).

4.2 Data Analysis

After the retrieval of the top 15 verbs with the highest MI³ score from both corpora, we first seeked to answer our first two research ques-
tions, underpinning respectively the distribution in the two corpora of evidential versus experiential usages of $V_{\text{over}}$ and whether any changes between the 1990s and the beginning of the 21st century have occurred in the partition of usages of $V_{\text{over}}$. We thus looked at the general distribution of experiential and evidential usages in the two corpora. We then performed a test of independence to assess whether there were significant mismatches based on chi-square and ‘Pearson residuals’.

The bar plot on the left hand side of figure 2 indicates a much more frequent usage of the $V_{\text{over}}$ construction [fig. 2]. It also shows a remarkably higher frequency of experiential usages (light grey) in contrast with the evidential ones (black) in the UCLA in comparison with the LCMC. This mismatch is statistically significant as indicated by the p-value ($< 0.0005$) from the chi-square test, given at the bottom right hand side of figure 2. To explain, the plot on the right-hand side above is called assocplot (R package: vcd, cf. Hornik, Zeileis, Meyer 2006) and allows the analyst to visualise significant mismatches between observed and predicted frequencies deriving from a chi-square test. These mismatches are commonly called ‘Pearson residuals’. If the observed frequency is greater than expected, the residual is positive. If the observed frequency is smaller than expected, it is then negative (Levshina 2015, 218). A blue colour (if any) indicates a significantly positive mismatch, whilst a red colour (if any) indicates a negative one, while the width of the bars is based on frequency.

From figure 2 we can clearly conclude that the frequency of evidential usages of $V_{\text{over}}$ is significantly higher in the LCMC corpus in comparison with the UCLA. This first result is not an obvious one. If we consider the relatively recent development of evidential functions of $V_{\text{over}}$, one may expect it to progressively increase throughout the decade in between the LCMC and the UCLA. Quite
the opposite emerges from figure 2, as it is the experiential function the one that increases dramatically. This tendency supports the idea that constructional change and grammaticalisation are not necessarily incremental (e.g. Tantucci, Culpeper, Di Cristofaro 2018; Tantucci, Di Crostofaro 2019). Once a division of labour among functions of one construction is established, the frequency of comparatively more recent usages (such as the case of V-过 guo used as an evidential) is not necessarily going to further increase at the expense of comparatively older ones (e.g. V-过 guo used as an experiential).

It is now time to bring to the fore the role of context and text types in the encoding of evidential rather than experiential functions of V-过 guo. To begin with, we plotted a multiple correspondence analysis (MCA) (e.g. Nenadic, Greenacre 2007) on a two-dimensional plane. In this model, associations among variables are measured by calculating the chi-square distance between different categories of the variables and between observations. These associations are then represented graphically as a map, which eases the interpretation of the structures in the data: the closer the distance between variables, the stronger the statistical correspondence (Levshina 2015).

Figure 3 MCA of the relationship between function of 过 guo, text types and verb types
In the plot above the two dimensions represent 84.1% of variation among the three variables, which is a good approximation for MCA visualisation (Levshina 2015, 382). What counts for the interpretation of the data is the degree to which Function (i.e. Experiential vs Evidential), Text Type and Verb Type cluster together, therefore indicating a large-scale convergence in the way people use the V-过 guo construction, pragmatically, semantically and in contextually situated text types.

We can first note a clear division between the left and the right hand side of the plot, with two distinct clusters including text types (green) and verb types (blue) around respectively experiential and experiential usages (red). More specifically, at the left-hand side of the map there are experiential functions of V-过 guo, in turn attracting a different set of text types and verb types. More specifically, experientials are strongly attracted to verbs of action, or physical perception, such as 见 jiàn ‘to see’ or 看 kàn ‘to watch’, and mental verbs such as 想 xiǎng ‘to think/plan’. These tend to form a cluster with text types K (General fiction), P (Romantic fiction), N (Martial arts fiction), M (Science fiction), A (Press reportage), L (Mystery detective fiction), and G (Biographies/essays). Most of these textual environments are fictional, whereby emotions and distinctive features of characters are often expressed through reference to their past experiences. The only exception regards A (Press reportage), which is undoubtedly a factual genre, yet also strongly based on a narrative stance of past events, which are very often experienced by the reporter or by other people who are being interviewed. Consider the extract below from the LCMC:

10. 这个问题是个很大的问题，因为我是从车间里滚出来的，发电机我也开过。上海二六轰炸的时候，我开过电机，我当厂长，我都是干过话的。(LC-MC / A: Press reportage)

zhè ge wèntí shì ge hěn dà de wèntí
this CLF question be CLF very big SP question
yīnwèi wǒ shì cóng chējiān lǐ gǔn-chūlái de fādiànjí
because I be from workshop in work-out SP generator
wǒ yě kāi-guo Shànghǎi èrliùhōngzhà de
I also operate-EXP Shanghai February.Sixth.Incident SP
déi shíhuò wǒ kāi fādiànjí wǒ dāng chǎng zhǎng wǒ
time I operate generator I be factory director I
dōu shì gàn-guo huó de
all be do-EXP work EMP
‘This is a very big question, because I used to work in a workshop and operated generators before; at the time of the February Sixth Incident in Shanghai, I operated generators and was a factory director—I was indeed engaged in my work’.
In the case above, the narrator is being interviewed about his previous experience working in a factory in Shanghai. This is a very interesting contextual environment. In fact, the usage of the construction is clearly experiential, yet, in this and similar contextual environments, someone’s personal experience is not shared merely to establish empathy among interlocutors, but more specifically to count as evidence about some broader factual information that has been reported by the interviewer. Nonetheless, interpersonal evidential pragmatic markers, such as据了解 ‘it is understood that’, 好像 hǎoxiàng ‘apparently’, 众所周知 zhòngsuǒzhōuzhī ‘as everyone knows’, would not be compatible with this usage, which indicates that V-过 guo in (10) can still be considered as prominently experiential.

Back to the map, we can see that evidential polysemies are rather attracted to verbs of saying (e.g. 说 shuō or 讲 jiǎng) or verbs inherently expressing the occurrence of some event, such as 出现 chúxiàn ‘to appear’, 发生 fāshēng ‘to happen’, 有 yǒu ‘to exist, to occur’, and so on. The convergence of these verb types and evidential usages of 过 guo is at stake in texts such as E (Skills/trades/hobbies), F (Popular lore), J (Science) and B (Press editorials). The latter all tend to be geared to registers whereby information needs to be reported as a piece of evidence, rather than some past event that contribute to shape the personality or the personal history of a specific persona/character. In this case, events are presented to the reader as facts that can be potentially verified. The per-locutionary effects of these usages are not the ones of getting to know someone better, but rather to inform the reader of a piece of socially shared knowledge.

11. 自上个世纪七十年代开始, 有过四次较大的 METI 项目, 但每一次都有人站出来反对。 (UCLA / J: Science)
从 last century 70s begin have-evd four cì jiào relatively big sp METI xìàngmù but every one cì dōu yǒurén zhàn-chūlái fǎnduì time always someone stand-out object ‘Starting from 1970s, there have been four relatively big METI projects, but every time there was always someone standing out to object’.

In (11) above, the stance of the speaker/writer is not centred on the identity of a specific persona, rather s/he uses 过 guo to report a piece of documented information that entails collective recognition, as adverbials of the kind of 据了解 jù liǎojiě ‘it is understood that’, 好像 hǎoxiàng ‘apparently’, 众所周知 zhòngsuǒzhōuzhī ‘as everyone knows’ would be perfectly idiomatic with this usage. This kind of usage is grounded in interpersonal evidentiality and is significantly associated with text types such as scientific essays or reports, as in the case above.
4.3 Evidential vs Experiential Categorisation in Context

Significant data-driven intersections of pragmatic, formal and contextual features are elsewhere defined as illocutional concurrences (IC) (cf. Tantucci, Wang 2018; 2020a; 2020b). IC are crucial to show that grammatical meaning is not independent from the pragmatic stance adopted by the interlocutors as well as the ‘contextual situatedness’ in which the speech event takes place.

This point is particularly evident in the last analysis of this paper below. In this case we plotted a conditional inference tree model (cf. Hothorn, Hornik, Zeileis 2006; Tagliamonte, Baayen 2012) gathering unbiased corpus-driven convergences of form, meaning, context and pragmatic effects, all contributing to the spontaneous encoding of either experiential or evidential usages of V-过 guo. We took in to account the function of the construction, the polarity (from table 1 in § 2 we can see how experiential usages of 过 guo are generally agreed to occur with negative polarity or in questions), the illocutionary force (whether the speech act occurs as a modalised evaluation – e.g. Tantucci, Wang 2018 – a question or a bare assertion), and the presence of sentence final particles, which could shed light on whether the construction is used in questions, or whether the utterance is characterised by modalised elements of intersubjectivity occurring at sentence periphery (cf. Traugott 2012, 2016; Tantucci 2017a, 2017b, 2020, forthcoming; Tantucci, Wang 2018, 2020a, 2020b).

Figure 4 Conditional inference tree IC of evidential vs experiential usages of V-过 guo
The plot above is obtained with the ‘ctree’ function of the R package ‘party’ (Levshina 2015, 291). It is important to emphasise that the tree above has nothing to do with a generative one. Conditional dependencies among variables in figure 4 exclusively depend on statistical significance (the higher the node, the more significant the ‘conditional decision’) [fig. 4]. The descending order of each split computationally simulates a conditional ‘decision’ made by the speaker/writer based on degrees of significance of each covariant that comes into play when a speech act including experiential or evidential functions of 过 guo is realised. In other words, the plot above is completely usage-based and computes holistically probabilities among semantic, pragmatic together with formal variables. The p-value of each ‘decision’ is reported under each variable before every split (e.g. ill_force p = 0.024 at the top of the tree).

From the above we can see that one interesting IC has to do with illocutionary force being either assertive or interrogative, and the polarity being negative. Convergence of these two features is significantly (p = 0.006) connected to experiential usages of V-过 guo.

12. 婉姐, 我没见过什么世面, 没也不懂。 (UCLA / M: Science fiction)
   wǎn jiě wǒ méi jiàn-exp shénme shá yě bù dǒng
   Wan sister I neg see-exp what life what also neg know
   ‘Wan, I haven’t seen much of life, and I don’t know anything’.

In (12) is given a negative assertion of the speaker referring to his/her past experience as a specific persona. This usage is distinctly narrative and occurs in a fictional text (M: Mistery fiction).

Another interesting IC has to do with presence of sentence final particles, which is not preponderant in neither of the two usages, yet still significantly more salient when experiences are narrated or enquired by the speaker/writer.

13. 你在海上清理垃圾的时候, 你想过有一天你会死在这件事上吗? (UCLA / L: Mystery detective fiction)
   nǐ zài hǎishàng qīnglǐ de shì-hòu nǐ xiǎng-guo yǒu yī tiān nǐ huì sǐ zài zhè jiàn shì-shòng ma
   you at sea clean.up rubbish sp time you think-exp have one day you would die at this CLF thing-on Q
   ‘While cleaning up rubbish at sea, have you ever thought about one day you would die because of this?’
As (13) illustrates, experiential usages of the construction tend to occur in dialogic contexts and thus are more likely to be attracted to sentence final particles such as the interrogative ma above. This IC is significantly absent when evidential grounding is at play, as statements are given assertively as reported, potentially verifiable pieces of information. This underpins a clear division of labour between the two functions, one hinging on affective engagement with an animate subject’s past experiences, the other being distinctively uttered to mark a proposition as an intersubjectively reliable piece of information. This case study has shed light on the holistic and multimodal factors that concur to the differentiation of the evidential vs experiential senses of the V-过 construction.

What emerged from this analysis is that speakers differentiate experiential and evidential meanings based on the context in which the construction is used, the illocutionary force of the linguistic act, the polarity and the presence of sentence final particles. This entails that meaning disambiguation occurs simultaneously at grammatical, semantic, pragmatic, and situational levels and results from the repeated ascription of a linguistic function to the situation type in which a lexeme is used. The present usage-based analysis of V-过 is relevant to a broader discussion about linguistic categorisation. In fact, from a usage-based perspective, categorisation is a process that arises as a result of single token instantiations of meaning. What this analysis suggests, is that speakers’ ability to identify analogies and similarities among instantiations of meaning cannot be detached from the physical or sociocultural space in which each occurrence takes place. Put simply, context and conventions of usage inform grammatical categorisation. The role of context is thus a crucial one for conceptualisers’ ability to establish categories at increasing levels of schematicity and grammatical specialisation. In this sense, the diachronic notion of upward strengthening regards the increased abstraction of a linguistic form leading to the progressive formation of grammatical categories (Hilpert 2015; Tantucci, Di Cristofaro 2019). When the latter reaches highly schematic nodes in a constructional network, it is then possible that context and ‘situatedness’ become progressively detached from schematic heuristics. This is the case of very abstract schemas such as transitivity, di-transitivity or resultativity, or even aspect or tense, in which conceptualisations of meaning are almost entirely schematic, and not metonymically attached to contextual state of affairs and sociocultural conventions. However, most linguistic functions are the result of a combination of single instantiations and schematic representation, and context does indeed play a crucial role in the speakers’ ability to identify and express categorial membership. This is precisely the case of the evidential functions of V-过 in Mandarin Chinese, as speakers’ ability to ascribe the relatively schematic notion of ‘shared
knowledge’ to the construction is inherently determined by the register and the sociocultural context in which those utterances occur (cf. text types of the kind of J, E, F, B in figure 3). This clearly entails that some degree of entrenchment (e.g. Langacker 1987; Schmid 2017; Tantucci, Culpeper, Di Cristofaro 2018; Tantucci, Di Cristofaro 2019) underpins the recurrent usage of 过 guo specifically in connection with text types that allow speakers to infer an evidential meaning rather than an experiential one. In turn, this means that entrenchment as such is also a process that is inherently context-driven and socioculturally situated, and not simply arising as the result of frequent co-occurrence of two or more items independently from contextual situatedness and pragmatic conventions (cf. Terkourafi 2015).

5 Conclusions

In this paper we argued that polysemy and categorial membership cannot be detached from ‘contextual situatedness’. While we maintain that, at very high levels of abstraction, sociocultural context does not play a role for the identification of grammatical categories, we also suggest that the progressive formation of those categories is inherently determined by the sociocultural instantiations in which a particular form tends to occur. Entrenchment is therefore experienced as a socioculturally situated phenomenon, and the contextual and co-textual environment where a particular form occurs is a crucial factor for identifying a division of labour among its usages. In this paper we provided a detailed case-study centred on the V-过 guo construction in Mandarin Chinese. We showed that a clear division of labour is at stake among experiential and evidential usages of the construction. This categorial separation occurs as a result of features underpinning form, usage and ‘contextual situatedness’. Evidentiality in Mandarin is therefore a category that emerges significantly from specific intersections among these three dimensions and from distinctive illocutional concurrences of conventionalised behaviour.

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