Multi-dimensional Meanings of Subjective Adverbs

- Case Study of Mandarin Chinese Adverb Pianpian

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Abstract

The combination of strict scalar and exclusive components of focus particles has been considered to be exceptional and rare in the literature. In this study, we identify and analyze a frequently used multi-dimensional focus particle *pianpian* 偏偏 in Mandarin Chinese and claim that it is a strictly scalar exclusive focus particle (which accordingly show evaluative properties). The analysis is based on data from CCL corpus. Different from English only, the scalar feature of pianpian is non-optional and does not depend on the lexical specification of the focus. Furthermore, the negation of the more expected/positive alternatives by *pianpian* gives rise to interesting interactions with surprisal, modality and speaker-orientedness.

1 Introduction

Cross-linguistically, focus can be broadly defined as information in a sentence which introduces alternative(s) of elements associated with meaning interpretation (Rooth, 1992; Krifka, 1999; Spalek, 2014). Focus particles, like other kinds of focus-sensitive expressions, mark the focus of a sentence (König, 1991; Gast, 2006).

Usually, focus particles can be categorized along two dimensions, each with two levels, i.e. whether a focus particle is exclusive (restrictive) or additive (inclusive) and whether it is scalar and/or non-scalar. Exclusive means that the alternative(s) of the focus are not possible variables for interpreting the sentence, on the other hand, the additive indicates that the truth condition of the proposition remains true when alternative(s) are substituted for focus. Within the group of exclusives, often discussed examples include English only, merely and only-like expressions. The additive category is best exemplified by English also, even, and their counterparts in other languages. The component of scalar and/or non-scalar uses measures a kind of ordering property of alternative(s) and focus elements in the perspective of the related event in the context, with scalar reading having such an order and non-scalar use lacking it respectively (König, 1991; Gast, 2006 etc.). Among additives, even and even-like operators are usually utilized in the literature to exemplify scalar interpretation (Karttunen and Karttunen, 1977; Kay 1990; König, 1991; Gast and van der Auwera, 2011; see Giannakidou and Yoon, 2016 for non-scalar use of even) (See (1) – (2) for examples of scalar and non-scalar uses of additives).

(1)　　Even John came.
a.∃x[(x=John) & came(x)]

b.∃x[(x≠John) & came(x)]
c.(∀y)[(y ≠ John & came (y) → exceeds(unlikelihood(came(John),unlikelihood(came (y))]

(2)   John also came.
a.∃x[(x=John) & came(x)]
b.∃x[(x≠John) & came(x)]
Note that (1c) has the scalar reading of John being less likely to come than other people; while there is no possible scalar reading for (2).
For exclusives, only and its counterparts are the most frequently mentioned particles supporting scalar use. (See (3) for instance of scalar use of only) However, "only sentences" do not constantly express scalar meaning as the scale is derived from the context - both the existence of the scale and parameter of the dimension of the scale (See (4) as the example of non-scalar use of only) (König, 1991; Horn, 1996; Gast, 2012).

(3)   John only ate three apples.
a.∃=3x[apple(x) & John_ate(x)]
b.¬∃>3x[apple(x) & John_ate(x)]
c.(∀>3y)[apple(y)   &   John_ate(y)   → exceeds(cardinal number(John_ate(more than three(y))), cardinal number(three (y))]

(4)   Only John came.
a.∃x[(x=John) & came(x)]
b.¬∃x[(x≠John) & came(x)]

Note that in (3), the numbers of apple is a scalar concept triggered by the numeral three in the con-text; while scalar meaning is not triggered in (4). Theoretically and logically it is possible for focus particles to integrate components of exclusive and scalar use. To our best knowledge, jupu in Gurindji is the only particle typologically reported to have both exclusive use and scalar use, without possilbe no non-scalar use. _Jupu_ is an invariant sentence adverb, which may often be translated_just_or_only (on the S-adverb sense). It modifies expectations about the whole sentence, the predicate or verb, but is never used in the sense of _only_qualifying an NP (McConvell, 1983:14). This paper presents an analysis of the Chinese adverb *pianpian* 偏偏 as a strictly scalar and exclusive focus particle.

2   Current Study

This study focuses on Mandarin focus marker *pianpian*. Literature from perspectives of both Mandarin focus particles and evaluative adverbs pay no or little attention to focus particle function of *pianpian* (see for instance Lü, 1980; Hou (ed.), 1998; Paris, 1998; Hole, 2004). Liu (2008) and Zhang (2014) labeled *pianpian* as focus particle though without further analysis. We propose *pianpian* to be an exclusively scalar exclusive focus particle, which means: (i) it disallows the alternative(s) (explicit or implicit) to be possible answers for the open sentence (what the speaker takes as the Current Question) in the scope of the particle and displays only scalar reading of the sentence unlike only-like exclusive particles. (ii) The scale pianpian induces to the understanding of the sentence is constant in the direction of ordering and complex as to the parameter of dimension - ranking focus element at higher level of ordering with the scale of expectation disconfirmation or negativity (unfortunateness).

3   Corpus Data Analysis

The hypothesis of this research is as follows:
a.   *Pianpian* is an exclusive focus particle. (i.e. The proposition with focus is true and the proposition with focus substituted by alternative(s) is false.)
b.   *Pianpian* is a strictly scalar focus particle. The scales *pianpian* triggers are of unexpectedness and negativity. And the proposition with focus is evaluated as more unexpected and negative than the proposition with focus substituted by alternative(s).
We retrieved 3740 *pianpian* sentences from the CCL contemporary Chinese corpus (This corpus contains 581,794,456 Chinese characters), among which we extracted 500 random sample sentences with context. We then precluded 68 sentences either because *pianpian* in those sentences mean intentionally or context information is missing. In total, we annotated 432 sentences for this study.
The annotation criteria are as follows:
-The focus in the *pianpian* sentence (*Pianpian* is very frequently left-adjoined to its scope within which focus can be identified. And focus is

the phrase which has explicit or inferred alternative(s));
-Syntactic components of focus in *pianpian* sentence (subject, object, verb predicate, adjective predicate, adverbial, modifier of NP);
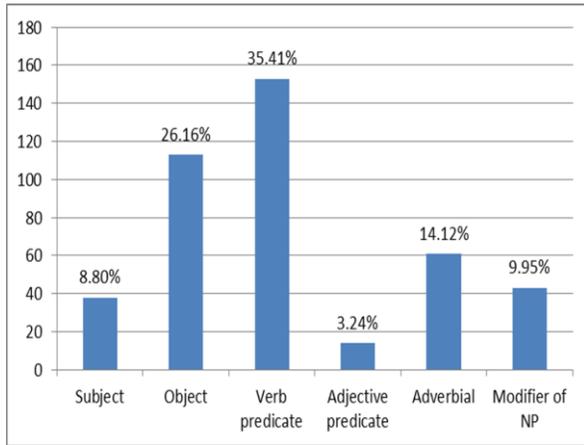-Alternative(s) of the focus;
-Whether alternative is explicitly excluded in the context;
-Whether unexpectedness is explicitly marked in the context;
-Whether negativity is explicitly marked in the context.

Based on our annotation, in the following two graphs we show the syntactic position of foci pianpian associates (in Graph 1) and whether alternatives are marked or not marked (in Graph 2).

Graph 1: Syntactic positions of foci *pianpian* associates
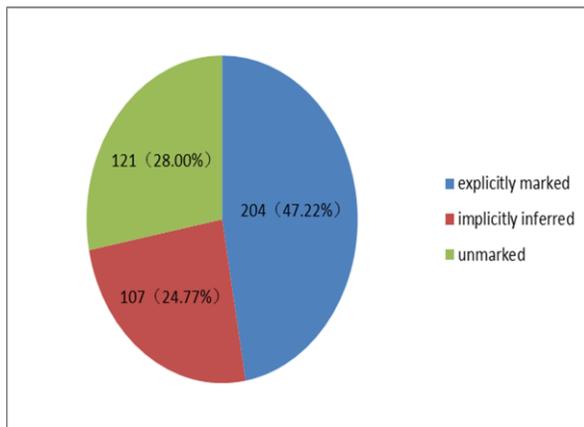
Graph 2: Alternative(s) marked or unmarked

From the Graph 1 we can see that the foci which *pianpian* associates with function mainly as

predicate (35.41% as verb predicate and 3.24% as adjective predicate) and object (26.16%), while only 8.80% of the foci appear in the subject position.

And Graph 2 shows that about half (47.22%) of the alternatives are explicitly marked, and among the rest, about half (24.77%) of the alternatives are implicitly inferred.

3.1 Exclusive Component of Pianpian

Among the 204 sentences where alternatives are explicitly marked, 94 examples (48.04%) explicitly show that the proposition with the focus substituted by alternative(s) is false.

(5)算你们运气，人家也当兵，一茬一茬的复员了，都没有赶上打仗，偏偏让［你们这一茬的］F¹赶上了。
suan_nimen_yunqi,renjia_ye_dangbing,yichayicha de_fuyuan_le,dou_meiyou_ganshang_dazhang,pia npian_rang_nimen_zheyichade_ganshang_le
count_you_luck,others_also_being soldier_,year by year_demobilized_TAM, all_not_encouter_war,pianpian_let_you_encouter
It is so unlucky of you. Other people also served in the army. Year after year, they have all been demobilized and have not encountered any war; you have to participant in the war.
a.(∃x)[(x=you) & participant_in _war(x)]

b.¬(∃x)[(x≠you) & participant_in _war (x)]

(6)她恨自己为什么能护理好医院的每一个病人，偏偏就护理不好［自己的母亲］F。
Ta_hen_ziji_weishenmo_neng_huli_hao_yiyuande _mei_yige_bingren,pianpian_jiu_huli_bu_hao_ziji de_muqin
She blames herself for not having taken good care of her mother while she can take good care of every other patient in the hospital
a.(∃x)[(x=mother) & I_did_not_take_good_care_of(x)]

b.¬(∃x)[(x≠mother) & I_did_not_take_good_care_of (x)]

In those sentences where alternatives are not explicitly excluded, we can inter the exclusiveness from the contrary relation of focus and

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¹ F stands for the focus of the sentence.

alternative(s). Even though alternative(s) are not excluded, it does not mean that they are included.

(7)晋武帝和他祖父、伯父、父亲都是善于玩弄权术的人，可是他的儿子——太子司马衷偏偏是一个[什么也不懂的低能儿]F。
jinwudi_he_tade_zufu_bofu_fuqin_dou_shi_shanyu_wannong_quanshu_de_ren,keshi_tade_erzi_taizi_simazhong_pianpian_shi_yige_shenmo_ye_bu_dong_de_dinenger
Emperor Jinwu_and_his grandfather, his grandfather's brother and his father_all_are_good at_play_political_tricks_person,but_hisson_prince_simazhong_pianpian_is_a_what_also_not_understand_ imbecile
Emperor Jinwu and his grandfather, his grandfather's brother and his father are all skillful in playing political tricks, but his son – Prince Sima Zhong is an imbecile who knows nothing.
a.(∃x)[(x=Sima Zhong) & being_an_imbecile(x)]
b.¬(∃x)[(y≠Sima Zhong) & being_an_imbecile(x)]

(8)团领导几次调他到驻在某城市的机关任职，可他偏偏离不开[梦魂萦绕的导弹竖井]F。
tuan_lingdao_ji_ci_diao_ta_dao_zhuzai_mouchengshi_de_jiguan_renzhi,ke_ta_pianpian_libukai_hunqianmengraode_daodanshujing
The official from the League has tried to transfer him to an organization in the city, but he would not like to leave missile silos which he cares a lot.
a.(∃x)[(x= missile silos) & he_would_not_leave(x)]
b.¬(∃x)[(x≠missile silos) & he_would_not_leave(x)]

(9)眼看该上班了，可老天偏偏[下起了雪]F。
yankan_gai_shangban_le, ke laotian_pianpian_xiaqi_le_xue
It is time to go to work, but, it has started to snow.
a.snow
b.¬[¬snow]

3.2 Scale of Unexpectedness Component of Pianpian

Based on the corpus data, we can see that the events pianpian evaluates are unexpected: 377 tokens (87.27%)
Markers for unexpectedness: strong to weak

unexpectedly, out of one's expectation:
meixiangdao 没想到，
meicengxiangdao 谁曾想到，
shichuyiwai 事出意外，
buliaoxiang 不料想，
jingran 竟（然），
juran 居然…
it is supposed to…,however…:
anlishuo......keshi/danshi......按理说......可是/但是......,
benlaiyinggai…keshi/danshi......本来应该......可是/但是......
but,however:
keshi 可是，
danshi 但是，
que 却...
it is unbelievable…:
lingrenbujiede 令人不解的，
lingrenfeijiede 令人费解的，
guaishi 怪事…

(10)那么多人参加比赛，偏偏我得了一等奖。
namo_duo_ren_canjia_bisai,pianpian_wo_de_le_yidengjiang
so_many_people_participate_competition,pianpian_I_got_TAM_first award
' I, of all the people who participated in the competition, won the first prize.'
a.(∃x)[(x=me) & got_first _place(x)]
b.¬(∃x)[(x≠me) & got_first_place(x)]
c.(∀y)[(y≠me) & participated_in_compitition(y) & got_first_place(y) → exceeds(surprise(got_first_place(me), surprise(got_first_place(y))]
Pianpian marks 我 wo' I' as the focus as well as the maximal level of expectation disconfirma-tion of the fact that the speaker won. It renders the alternatives (a person other than me winning) ranked as more likely (or less improbable). This is a case showing only-unexpectedness-dimension scale.

3.3 Scale of Negativity Component of Pianpian

The events pianpian evaluates are negative: 236 tokens (54.63%)：

Markers for negativity:

negative emotion words:

taiyihanle 太遗憾了 regretful，

buxingde 不幸的 miserable，

kebeide 可悲的 pathetic，

zhenkexi 真可惜 unfortunate，

daomeide 倒霉的 unlucky

…

nouns with negative meaning：

beiju 悲剧 tragic，

sunshi 损失 loss，

weihai 危害 harm，

mafan 麻烦 trouble

…

negative events：

shengbing 生病 being sick，

chushi 出事 something terrible happens，

shiqujihui 失去机会 losing a chance，

niangchengzhezhongjieju 酿成这种结局 rendering into such a negative consequence

Most of the pianpian sentences show both unexpectedness and negativity evaluations. This is consistent with the frequent co-occurrence of surprise and negativity in the studies of language and emotion (Gendolla& Koller(2001)，Lin, J., & Yao, Y. (2016).

(11)不早不晚，电脑偏偏这时候坏了。

bu_zao_bu_wan,diannao_pianpian_zhe_shihou_huai_TAM

not_early_not_late,computer_pianpian_this_time_bad_TAM

'Neither one minute earlier, nor one minute later, the computer broke now right at this (critical) moment'.

a.(∃ x)[computer(x) & (break(x))(now)]

b.¬(∃ x)[computer(y) & break(x)(at t) & t≠now]

c.(∀ y)[computer(y)&break(y)(at t)&t ≠ now] → exceeds(negativity(break(y)(now)), negativity(break(y)(at t)(t≠now))

Pianpian in this example is associated with the focus 这时候 zheshihou 'this (critical) moment'

. The sentence asserts the fact that the computer broke now and also implies that it did not break at any other time points. And the scale pianpian induces in this sentence is only of negativity as the computer is equally likely to break at any time points, however the speaker finds it very unfortunate that the computer stopped working now. The scalar expectation here is that this particular time point is the worst time for the computer to breakdown (compared with all the possible time points).

(12)这么重要的面试,他偏偏搞砸了。

zhemo_zhongyao_De_mianshi,ta_pianpian_gao_za_TAM

so_important_De_interview,ta_pianpian_do_bad_TAM

'Of all the interviews, s/he blew this most important one.'.

a.(∃ x)[interview(x) & important(x) & he_mishandled(x)]

b. ¬ (∃ x)[interview(x) & important (x) & ¬(he_mishandled(x))]

c.(∀ y)[interview(y) & important (y) & ¬(he_mishandled(y))] → exceeds(unexpectedness(interview(y) & important (y) & (he_mishandled(y))), unexpectedness(interview(y) & important (y) & ¬(he_mishandled(y))) & exceeds(negativity(interview(y) & important (y) & (he_mishandled(y))), negativity(interview(y) & important (y) & ¬(he_mishandled(y)))

Sentence (12) exemplifies the focus being the predicate and the scalar reading being of both unexpec-tation and negativity. To be specific, 搞砸了 gaozale 'blow/mishandle (something)' is the focus element in this sentence. The related alternatives are "did great (in the interview)" etc. Not doing well in a very important interview is evaluated as negative and unexpected by the speaker. It is also important to note that the scalar reading is also possible from 这么重要的面试 'such an important interview'. That is, the expectation being that this interview is the one that the subject (he) can least affords to fail. And with a slightly different focus (and background information), the expectation can also be on the subject 他 he. That is, if the subject is sent by a bidding team

to represent them at the important final interview (instead of other team members). Then this he is considered to be the least likely to fail, yet did fail. Of all possible readings, it is important to note that the focus must go hand-in-hand with a contextually specified scalar expectation.

3.4 Subjective (Evaluative) Adverb Component of Pianpian

The unexpectedness and negativity meanings of pianpian renders it as an evaluative adverb[2] which behaves like normal subjective adverbs – positioning before modals, negations, time adverbs, degree adverbs etc., e.g. pianpianneng 偏偏能，pianpianmeiyou 偏偏没有，pianpianxian 偏偏先，pianpianhen 偏偏有些.

(13) "天上掉馅饼"的事情少之又少。不过对于在德国高校求学的大学生而言,就偏偏能碰上这种好事－－因为那里不收学费。
It is so rare to see pennies from heaven, however, for college students studying in Germany, pianpian this kind of things could happen since they are not charged by tuition fee.

(14) 今年 5 月,10 余个国家的登山健儿吹响了征服珠穆朗玛峰的号角。其中有为庆祝中国与斯洛伐克建交 5 周年而组建的中斯联合登山队。然而,连日来涌向峰顶的人群中,偏偏没有公认为实力最强的中国队员的身影。
In May this year, mountain climbers from more than ten countries have started to climb Mount Qomolangma. One of the teams was China Slovak Joint Mountaineering Expedition, which was set up to celebrate the 5th anniversary of establishment of the diplomatic relationship between China and Slovak. For days, pianpian no Chinese was found in the mountain climbers who were thought as the strongest.

(15)在国内学了 4 年的马来语,本以为语言上该不会有什么问题,可问题却偏偏先出在了语言上。
He has been learning Malay for four years before going to Malaysia and has thought language would

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[2] Evaluative adverbs concern with the speaker's evaluative comment/judgment of a proposition (Bonami, 2008).

not be a problem, pianpian, the problem comes first from the aspect of language.

(16)王蝶喜暖,只有在阳光灿烂的时候才频繁活动。当天却偏偏有些多云,我不免有些担心。
Monarch butterfly prefers warmth and only frequently moves around when the sun is shining. Pianpian, that day was a little cloudy, about which I was worried to some extent.

Different form some subjective adverbs, pianpian is not limited to occur in veridical/realis sentences, it can occur in some interrogatives and conditionals – weishenmo pianpian 为什么偏偏……，if…pianpian…如果……，偏偏……。

(17) 既然别人能够回去与家人团聚,为什么偏偏他无法享受这份权利呢?
All the others can get together with their family, why pianpian he doesn't have this right?

(18)如果你是一位营销人员，偏偏性格又很内向，那就迫使自己每天主动与业务单位进行联系、沟通。
If you are a salesperson, pianpian you are controverted, then you need to force yourself to contact and communicate with the cooperating company.

4 Conclusion

According to our data, the majority of examples express the scale formed by both dimensions of expectation reversing and negativity. The phenomenon that unexpectedness is usually found occurring with negativity (unfortunateness) is also supported by previous studies on emotion and language (see Gendolla and Koller, 2001 and Lin and Yao, 2016 for instance). To summarize, different from English only, the scalar property of *pianpian* is non-optional and does not depend on the lexical specification of the focus, but must be associated with the contextually stipulated scale. Furthermore, the negation of the more expected/positive alternatives by *pianpian* gives rise to interesting interactions with the contrary to expectation modality and speaker-orientedness. This study provides evidence for the exclusive and strict scalar focus particle category

and shows one possible way of how subjective adverbs could have multi-dimensional meanings.

References

Olivier Bonami. and Godard Danièle. 2008. "Lexical semantics and pragmatics of evaluative adverbs." Adverbs and adjectives: Syntax, semantics, and discourse : 274-304.

Volker Gast. 2006. Focus Particles. In Brown, K. (ed.), The Encyclopedia of Language and Linguistics, Vol. 4 (2nd ed.), 518-519. Oxford: Elsevier.

Volker Gast. and Johan Van der Auwera. 2011. Scalar Additive Operators in the Languages of Europe. Lan-guage 87.1: 1–53.

Volker Gast. 2012. At Least, Wenigstens, and Company: Negated Universal Quantification and the Typology of Focus Quantifiers. Strategies of Quantification. Oxford: OUP, forthc.

Guido HE Gendolla and Michael Koller. 2001. Surprise and Motivation of Causal Search: How are They Af-fected by Outcome Valence and Importance?. Motivation and Emotion, 25(4), 327-349.

Anastasia Giannakidou and Suwon Yoon. 2016. Scalar Marking without Scalar Meaning: Nonscalar, Nonex-haustive Even-marked NPIs in Greek and Korean. Language, 92(3), 522-556.

Daniel Hole. 2004. Focus and Background Marking in Mandarin Chinese. System and Theory behind cái, jiù, dōu and yě. (Asian Linguistics 5.) London & New York: RoutledgeCurzon. Laurence R.Horn. 1996. Exclusive Company: Only and the Dynamics of Vertical Inference. Journal of Semantics 13: 11–40.

Xuechao Hou(侯学超). (ed.)1998. Dictionary of Function Words in Contemporary Chinese (现代汉语虚词词典).Beijing: Peking University Press.

Paul Kay. 1990. Even. Linguistics and Philosophy, 13(1), 59-111.

Ekkehard König. 1991. The Meaning of Focus Particles: A Comparative Perspective. London: Routledge.

Frances Karttunen and Lauri Karttunen. 1977. Even questions. North East Linguistic Society (NELS) 7: 115–34.

Manfred Krifka. 1999. At Least Some Determiners aren't Determiners. In Turner, K. (ed.), The Seman-tics/Pragmatics Interface From Different Points of View, 257-291. Oxford: Elsevier Science B.V.

Jingxia Lin and Yao Yao. 2016. Encoding Emotion in Chinese: a Database of Chinese Emotion Words with Information of Emotion Type, Intensity, and Valence.Lingua Sinica, 2(1), 6.

Tanzhou Liu(刘探宙). 2008. Constructions Containing Multiple Strong Foci in Chinese (多重强式焦点共现句式). Zhongguo Yuwen 3: 259-269.

Shuxiang Lü(吕叔湘). 1980. 800 Words in Modern Chinese (现代汉语八百词).The Commercial Press.

Marie-Claude Paris. 1998. Focus operators and types of predication in Mandarin. Cahiers de Linguistique-Asie Orientale 27, 2: 139-159.

Patrick McConvell. 1983. 'Only' and related concepts in Gurindji. Manuscript, NorthernTerritory University, Darwin.

Mats Rooth. 1992. A theory of focus interpretation. Natural Language Semantics 1: 75-116.

Katharina Spalek, Nicole Gotzner and Isabell Warten-burger. 2014. Not only the apples: Focus sensitive particles improve memory for information-structural alternatives. Journal of Memory and Language, 70, 68-84.

Yisheng, Zhang(张谊生). 2014. Study on Mandarin adverbs (现代汉语副词研究). Beijing: The Commercial Press.

Websites

北京大学中国语言学研究中心现代汉语语料库"CCL Contemporary Chinese Corpus". (n.d.). Retrieved November 1, 2016, from Center for Chinese linguistics PKU: http://ccl.pku.edu.cn/#