Incidental Learning of the Figurative Meanings of Duplex Collocations from Reading: Three Case Studies

Abstract

There is little research available on incidental learning of figurative language from reading (Webb et al., 2013; Pellicer-Sánchez, 2017). This study looked at collocations that had both literal and figurative meanings, i.e. duplex collocations[1] (Author Aa) and whether reading could enhance lexical knowledge of the figurative meanings of these collocations. In three case studies, relatively advanced L2 learners read a semi-authentic novel that contained 38 target items. Through one-to-one interviews, conducted one week and three weeks after the treatment, the study examined how much learning occurred at the meaning-recall level and how repetition affected this knowledge. Results showed that figurative language could be learned incidentally and that knowledge of more than half of the target collocations for each participant was enhanced either partially or fully. They also indicated that repetition was consistently positive, but that the correlations did not always reach the significance threshold.

Keywords: vocabulary acquisition, incidental learning, reading, duplex collocations, repetition, positive attitudes

Introduction

Because of the large number of both single words and phrases in English, they cannot all be explicitly taught in a classroom and the majority of them are left to incidental acquisition. An important variable in incidental vocabulary acquisition research has been the role of repetition. A number of studies on individual words have suggested that second language learners can acquire new words incidentally from reading and that repetition positively affects this learning (Waring & Takaki, 2003; Pigada & Schmitt, 2006; Webb, 2007; Pellicer-

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[1] Depending on research purpose and theoretical orientation, most of the researchers would define duplex collocations as figurative idioms (e.g. Howarth, 1996; Grant & Bauer, 2004).

Sánchez & Schmitt, 2010; Pellicer-Sánchez, 2017). However, vocabulary also has a tendency to occur in multi-word units called *formulaic sequences* (Wray, 2002; Schmitt, 2010). Research on incidental learning of such units (mainly collocations) from reading has been much less abundant and has shown that there was a positive, however not always a statistically significant relationship between repetition and collocational knowledge (Durrant & Schmitt, 2010; Webb, Newton, & Chang, 2013; Szudarski & Carter, 2016; Pellicer-Sánchez, 2017). An important caveat of these previous studies is that they have mainly used collocations with literal meanings (e.g. *powerful computer*), leaving under-researched those collocations that can have an additional, figurative meanings which cannot be understood from the combined meanings of the component words. Given that idiomatic language is challenging for learners (e.g. Celce-Murcia & Larsen-Freeman, 1998) and that only a small fraction of these phrases can be covered in a classroom (Boers, Lindstromberg & Eyckmans, 2014), finding facilitative incidental reading conditions for learners and the degree to which knowledge is gained incidentally for the different types of collocations is worthy of investigation.

In order to address these issues, this study examines whether the figurative meanings of duplex collocations (Author Aa) can be learned incidentally from reading, how much learning can occur and how repetition affects this learning. Moreover, the study tries to capture partial knowledge to show incremental vocabulary acquisition towards full mastery (Henriksen, 1999; Webb, 2007; Schmitt, 2010).

Repetition and incidental learning of L2 individual words

One of the early studies into L2 incidental vocabulary acquisition was Saragi, Nation and Meister's study (1978). Twenty native speakers of English read the novel *A Clockwork Orange* (Burgess, 1972) and then were tested on their knowledge of ninety Russian slang words ('nadsat') through a multiple-choice meaning recognition test. There was a significant amount of nadsat learning, with an average score of 76% correct answers. Conceptual replications of this study, however, produced much lower gains, between 6.4% and 8.1% (e.g. Pitts, White, & Krashen, 1989; Day, Omura, & Hiramatsu, 1991; Dupuy & Krashen,

1993). These replications were criticised for a number of reasons: they did not measure partial knowledge (Pitts et al., 1989), there were no delayed post-tests (Day et al., 1991) and it is questionable whether the gains can be generalised to other input conditions because they came from reading while listening (Dupuy & Krashen, 1993). In later studies, some of these limitations were addressed to some degree (e.g. Horst, Cobb, & Meara, 1998; Horst & Meara, 1999). These studies showed that the learning gains were higher than in the previous studies (e.g. around a fifth of the target items were learned in Horst et al. (1998)) and that this knowledge was durable as measured in the post-tests.

Recent research has also documented incidental vocabulary gains from reading graded readers (Waring & Takaki, 2003; Pigada & Schmitt, 2006; Webb, 2007; Brown, Waring & Donkaewbua, 2008). For instance, Pigada and Schmitt (2006) investigated how repetition affected incidental learning of spelling, meaning and grammatical characteristics of words by a learner of French. There was a clear relationship between repetition and enhancement of lexical knowledge and some degree of learning was demonstrated for 87 out of the 133 words tested. Spelling was the most enhanced level of knowledge, followed by meaning, and grammatical characteristics. Similarly, Webb (2007) looked at the effects of repetition on productive and receptive knowledge of spelling, association (writing associate words such as synonyms next to the target word), grammatical functions, syntax and meaning and form. He found that repetition had a significant effect on vocabulary knowledge, although at different rates for different knowledge aspects. Knowledge of all five aspects tended to increase with increased repetition of the target words and at ten occurrences, significantly greater gains were shown for each aspect. Spelling gains were the largest (77% and 88% on receptive and productive tests respectively), while the other aspects showed much lower gains, i.e. 29% for the productive test of form and meaning.

Fewer studies have focused on unmodified authentic texts. Pellicer-Sánchez and Schmitt (2010) conducted a study in which they explored the degree to which spelling, word class and recognition and recall of meaning could be acquired from the unmodified authentic novel *Things Fall Apart*. They found that repetition had an effect on learning gains and that these ranged from 14-43% of the target words.

Repetition and incidental learning of L2 collocations

Unlike numerous studies done on incidental learning of individual words, research on incidental learning of collocations is scarce. Webb et al. (2013) investigated the effects of repetition on the learning of collocations through reading while listening. 161 Taiwanese students of English read and listened to one of four versions of a modified graded reader in which eighteen collocations were embedded one, five, ten and 15 times (Group 1, Group 5, Group 10, Group 15 plus a control group). The pre-test measured only receptive knowledge of form whereas there were four different post-tests that measured receptive and productive knowledge of form and receptive knowledge of form and meaning. Results of the post-tests show that Group 15 had significantly higher gains than any other group, both on the test measuring receptive knowledge of the form as well as on the other three tests. Nevertheless, as acknowledged by the authors, results have to be interpreted with caution due to lack of a pre-test that tested these levels of collocational mastery.

Likewise, Durrant and Schmitt (2010) examined whether repetition would lead to more learning of the target collocations. Three different conditions were created, namely *single presentation* (one repetition in a single context), *verbatim repetition* (two repetitions in the same sentence context) and *varied repetition* (two repetitions in two different sentences). Similar results to the above studies were obtained. The learners remembered nouns that had been seen with their paired adjectives in the training session better than those that had not. Results reveal that collocations were learned, with the higher numbers of repetition leading to significantly higher gains than the lower numbers of repetition.

Szudarski and Carter (2016) also looked at how repetition affected knowledge of collocations. The reading materials consisted of six stories in which the target collocations appeared six and twelve times. The findings demonstrate that at twelve occurrences, there was considerable learning at the form recall level, but at the meaning recall and form recognition levels, significant gains were found at six occurrences. The authors conclude that more exposure does not necessarily lead to better results at all levels of collocational mastery (i.e. form recall, meaning recall, form recognition).

Finally, Pellicer-Sánchez (2017) looked at the incidental acquisition of adjective-pseudoword collocations while reading. Six collocations were presented in a story either four or eight times. One week after the reading, forty-one L2 learners were tested on their knowledge of the form, meaning and collocation of the target items. Results demonstrate that collocation knowledge can be acquired incidentally from reading, but that there was not a statistically significant difference between four and eight encounters.

Collocations with figurative meanings

Collocation is one of the problematic terms in applied linguistics, with different definitions and approaches to identification. The phraseological approach (e.g. Moon, 1998) sees them as word combinations, displaying various degrees of fixedness, opacity and combinability whereas the statistical approach (e.g. Sinclair, 1991) harnesses the power of computers to search very large modern corpora, based on statistical formulas (e.g. MI, T-score) or frequency. Unfortunately, what constitutes a collocation in one of these approaches may not be defined as such in another. For example, whereas some authors would call the word combinations *pull the strings, cut corners* and *bottom line* collocations (e.g. Nesselhauf, 2003; Wolter & Gyllstad, 2013; Webb et al., 2013, Author Aa), others would argue that these are figurative idioms (e.g. Howarth, 1996; Boers & Webb, 2015). To illustrate this inconsistency in defining the terms, the expression *a piece of cake* (which has both literal and figurative meanings) can be found in both the *Collins COBUILD Idioms Dictionary* (2012) and the *Longman Collocations Dictionary for Intermediate-Advanced Students* (2013).

This study adopts the statistical approach and using measures of statistical strength as the only criterion leads to inclusion of idioms as collocations (e.g. Webb et al., 2013). As Webb et al. (2013) rightly point out, this approach is 'more ecologically valid' as learners are likely to encounter collocations of varying degrees of semantic transparency and also with different meaning senses in incidental learning contexts. Moreover, this study looks at only one type of collocation, i.e. those with both literal and figurative meanings or *duplex collocations* (Author Aa) as they seem to be challenging for learners (e.g. Grant & Bauer,

2004[2]; Webb et al. 2013, Author Ab). In particular, the study focuses on the figurative meanings of these collocations.

Factors affecting acquisition of figurative meanings

The studies on collocations reviewed above show that the effect of repetition does not seem to be as decisive as it is with individual words. Clearly, factors other than repetition also make a difference. Duplex collocations have been studied within the phraseological school as figurative idioms and so for our better understanding, it is crucial to take the rich idiom literature into account as well. Research on idioms shows that various factors influence successful interpretation of figurative language. For example, research suggests that the easiest L2 idioms to learn were those that had the corresponding L1 equivalent (Laufer, 2000; Charteris-Black, 2002). Cross-cultural differences may be a further obstacle to successful learning of idiomatic meanings (Kövecses, 2005). In Western culture, for example, the emotions reside in the heart, so there are a high number of expressions with heart (e.g. *a bleeding heart, to lose heart, to eat your heart out*). In other cultures, like Mandarin Chinese, this is not the case, so Chinese EFL learners struggle with idioms containing the word *heart* (Hu & Fong, 2010). Furthermore, retention has been shown to be facilitated in case of idioms that can be 'motivated', i.e. traced back to their underlying metaphoric themes (Boers, 2000) or derived from creating a connection with their original, literal usage (Boers, Eyckmans & Stengers, 2007; Boers, Lindstromberg, Littlemore, Stengers, & Eyckmans, 2008). For instance, the phrase *be waiting in the wings* can be motivated with reference to the literal meaning of the expression: 'actors waiting in the wings of the theatre prior to a show'. This is especially important if we consider the fact that second language learners naturally tend to search for clues in the literal meanings of the component words of figurative phrases (e.g. Ciéslicka, 2006). Polysemy and homonymy may

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[2] Grant & Bauer (2004) define these items as 'figuratives' as a subtype of idioms. They also state that semantically opaque idioms are the most difficult type of multiword unit to learn for second language learners, followed by phrases that are both literal and figurative and semantically transparent items.

also be the reason why second language learners fail to interpret figurative meanings successfully. In the above example, the first meaning that comes to learners' mind upon seeing the word 'wings' is probably that related to 'wings of birds', and using this meaning will most likely cause misinterperation. Finally, research suggests that guessing from context has benefits for successful comprehension of idiomatic meanings as well (Cooper, 1999).

Aims and research questions

With the limited research available, the effectiveness of repetition for the incidental learning of L2 collocations is still unclear. In most studies, more repetition leads to better results (e.g. Webb et al., 2013), whereas in others, the effectiveness of repetition is brought into question (e.g. Szudarski & Carter, 2016; Pellicer-Sánchez, 2017). Moreover, almost all of these previous studies used collocations that had only one (literal) meaning as their target items, except for Webb et al.'s (2013) study, in which the authors used a couple of collocations with both literal and figurative interpretations. This study, however, suffers from several limitations. Because Webb et al. (2013) use different kinds of collocations, it makes it difficult to know how repetition affects acquisition of each type from reading. Second, different levels of collocational mastery were measured in the post-tests, but only one of them (receptive knowledge of the form) was tested in the pre-test, so, it is questionable whether the results from these tests are a true reflection of the participants' learning. Third, it is not clear how the authors scored the responses and whether they measured partial knowledge. Because of incremental nature of vocabulary acquisition (e.g. Henriksen, 1999; Webb, 2007; Schmitt, 2010), accounting for partial knowledge is 'necessary in order to fully appreciate the benefits reading has for vocabulary' (Pigada & Schmitt, 2006, p. 6). Fourth, the authors used a graded reader as their target material, so it is an empirical question whether the same amount of incidental learning can occur from semi-authentic texts. Semi-authentic texts in this article refer to authentic texts that have been seeded with instance of target items, but unlike graded readers, the great majority of the text in unmodiefied. Finally, and most importantly, the participants both read and listened to the target text, which could have inflated scores, further justifying the need for more research.

Considering all the above, the present study examines the acquisition of L2 figurative collocational knowledge from reading in a natural context. It attempts to fill two main gaps: lack of research on incidental learning of collocations in general and absence of research on incidental learning of the figurative meanings of collocations which can be both literal and figurative (duplex collocations). By employing one-to-one interviews, including multiple case studies and accounting for partial knowledge, the study seeks to answer the following research questions:

1. To what extent does reading a semi-authentic novel lead to gains in L2 learners' knowledge of the figurative meanings of duplex collocations in the text?
2. How does repetition affect incidental acquisition of the figurative meanings of duplex collocations?

Methodology

Participants

The participants who took part in this study were three female PhD students at a British university, one Thai, one Polish and one Libyan. Their age ranged from 28-34 years old (mean=30.33, SD=3.21). They had lived in England for an average of 3.67 years. To be able to study at an English-speaking university, they all had to take a standardised, internationally-recognised language proficiency test. The Thai and Libyan participants took the IELTS and scored 7.0 and 6.5, respectively. The Polish participant was not required to sit any language proficiency tests as she took an advanced exam in English at the end of high school.

At the beginning of the experiment, the participants completed a self-rating test of proficiency in English (Table 1) in which they had to rate their level of the four skills on a scale of 1 to 10, 1 being extremely poor, almost no knowledge and 10 being extremely good, almost native like. The mean values for all skills were between 6 and 8, and all participants rated their reading skills as 8.

Table 1. Self-rating proficiency scores

Skills	Max	Min	M	SD
Reading	9	7	8.00	1.00
Writing	8	5	6.67	1.53
Listening	9	6	7.33	1.53
Speaking	7	5	6.33	1.15

The participants' vocabulary sizes, based on scores from the Vocabulary Size Test up to the 14,000 level (Nation & Beglar, 2011), ranged between 7,800 and 10,400 word families. Overall, based on proficiency scores, self-rated reading level and vocabulary size scores, all participants can be described as relatively advanced users of English and thus able to read authentic texts. Also, they all reported (in the post-treatment interviews) that the level of the book was appropriate for their level of English and that they could follow the storyline and there were not many unknown words (except for the target collocations).

Reading material

An authentic novel was chosen for this study because this is the kind of texts that the participants normally encountered and engaged with on an everyday basis (personal communication with the participants).

The novel selected was *Playing Dead* (the *Prison Break* trilogy) by Allison Brennan, a romantic thriller which was first chosen on basis of the researcher's intuitions, and also because the participants confirmed they liked this genre. The novel was long, around 115,000 words spread across 462 pages. Moreover, following the above proficiency scores, the language level of the novel was judged to be appropriate for successful L2 reading comprehension (confirmed in the subsequent interviews).

Target collocations

The target items consisted of 38 collocations (Appendix I). However, because there are many types of collocations, trying to systematically measure each one would make data difficult to interpret. Therefore, for a meaningful analysis to be possible, the study was limited to adjacent lexical collocations (or with only one intervening word, e.g. *hit the road*). These collocations were further restricted to Verb+Noun and Adjective+Noun combinations, these being the most researched types (Henriksen, 2013).

The target items were extracted from a range of different sources such as Webb et al. (2013) study, collocation dictionaries (e.g. *the Longman Collocations Dictionary and Thesaurus for Intermediate-Advanced Learners* and *the LTP Dictionary of Selected Collocations* (Hill & Lewis, 1998)), the Internet and TV. The target items were all roughly the same length, with the only noticeable difference being phrases that contained a possessive adjective, (e.g. *hold one's breath*).

Finally, different grammatical forms of Verb+Noun and Adj+Noun collocations were presented in the text. This was because the storyline dictated whether a particular V+N collocation was used in present or past or whether any of the Adj+N collocations had to be used in singular or plural (e.g. *His parents kicked the bucket when he was just a kid/ But there were a lot of powerful, criminal, Russian fat cats in Sacramento and Stockton*). Another reason is the ecological validity of the reading process itself as when reading, learners are exposed to all kinds of grammatical forms in which individual words and phrases occur.

Methods of measurement

The nature of the study (case studies) allowed for the possibility to employ one-to-one interviews as the main measurement method (Schmitt, 1998). It was possible to interactively question each participant at length, until a very good impression was achieved concerning the knowledge level of the figurative meanings of duplex collocations. The study measured the knowledge of the target items at the meaning-recall level because it is comprehension of these figurative meanings that learners generally struggle with (e.g. Martinez & Murphy, 2011).

Because the participants were likely to know some of the target items, they were interviewed before the reading treatment (hereafter 'pre-test') and after the treatment (hereafter 'post-test'). The participants were told that they would be tested on their reading comprehension, but were not informed of the research questions.

Both the pre-test and the two post-tests (immediate and delayed) had the same format. Each participant was presented with a list of target items (38 in the pre-test and only those unknown to each participant in the post-test) embedded in non-defining contexts and marked in bold (e.g. *They will soon tie the knot.*). They were given a brief summary about literal and figurative multi-word combinations and provided with a few examples. Then, in order for partial knowledge to be traced, they were asked to say everything they knew about the meaning of each item and encouraged to provide examples. They were also asked to inform the researcher if some of the target items had cognates in their L1s. The pre-test lasted about 20 minutes, whereas the post-tests were about 15 minutes long. Moreover, the order of the target items was randomised in each post-test for each participant in order to account for order effects.

Finally, a questionnaire was created in order to explore how the participants approached the reading and the learning of new phrases (Appendix II). Sixteen questions were prepared regarding participants' opinions about their reading habits, interest in the novel, strategies, etc. The questions were asked through interviews and the participants were encouraged to answer freely.

Procedure

The procedure consisted of several steps. First, after the novel was selected, it was scanned and saved in a doc. file. Then, the target items were inserted as many times as possible. The insertion involved reading the book and looking for contexts/instances which would allow for the insertions to be made. It also involved looking for synonyms of the target items. Modifications included changing word order and breaking down a sentence into several parts.

<u>Examples of insertions</u>

… He had no desire to go into medicine. He'd tell his father to <u>go to hell</u>… was replaced by

… He had no desire to go into medicine. He'd tell his father to <u>take a hike</u>...

…Raw anger and deep sadness always accompanied any thoughts of her father… was replaced by:

… Any thoughts of her father were a <u>sore spot</u>. Raw anger and deep sadness accompanied them…

Second, when the insertions were finished, the novel was sent to additional 4 raters (native speakers of English), who also read the book and inserted the target items where possible. Once all possible insertions were completed (the number of insertions ranged between one and 25), they were collated into one master copy, which was examined by a separate native speaker judge who checked every insertion and excluded those that did not fit the context well.

Third, the pre-test was administered. As expected, different degrees of knowledge were demonstrated. For some target items, the participants could explain the figurative meanings fully, some target phrases were only partially known and the participants would say they were not sure what these meant, and finally, there were items the participants said they did not know. Those target items that each participant showed full knowledge of (according to the criteria below) were excluded. Cognates were excluded as well. As a result of this exclusion, the Thai participant did not know 32 target items (21 unknown and 11 partially known target items), the Polish participant's number of unknown items was 18 (13 unknown and 5 partially known items), and the Libyan participant's tally equalled 27 items (19 unknown and 8 partially known items). To flush the effects of memory and to draw participants' attention away from the collocations, two distracting tasks were administered straight after the main pre-test. These consisted of a reading speed task, in which the participants had to read a text for three minutes and a multiple-choice grammar test.

Fourth, the modified novel was then given to the participants who were asked to read for pleasure, in their own free time and at their own pace. Use of a dictionary was not allowed. They were given up to 4 weeks, but were also told they could finish reading the book earlier or ask for more time. The Thai participant read the book in only 4 days, the Polish

participant took 4 weeks to finish the reading, whereas the Libyan participant needed an extra week, i.e. 5 weeks in total.

Finally, the immediate and delayed post-test took place. The former was administered directly after each one of the participants read the novel, whereas the latter was given three weeks later.

Marking

The tests were marked in the following manner. A fully correct answer was given 2 points (e.g. *blue ribbon* = 'the important one; compared to the others, this one is the best'), a partially correct answer was awarded 1 point (e.g. *tie the knot* = 'to become couple officially; just to be together') and a completely wrong answer (e.g. *hit the roof* = 'be excited in a positive way, for example if I tell my husband that I passed my viva, he'll hit the roof in excitement) or 'I don't know' answer received 0 points.

Two raters (native speakers of English) with a background in Applied Linguistics were asked to listen to the interviews and mark the participants' answers in the same way as described above. They had been previously provided with all target items and their literal and figurative meanings. They were asked to follow the definitions provided (Appendix III). For example, the phrase *make noises* has two figurative meanings, 'complain' and 'talk about something that you might do, but not in a detailed or certain way'. The raters were told to rate the participants' answers against the second definition because it was this definition that was used in the novel. When there was a disagreement between the raters, the final decision was made by the author as third rater.

Interrater reliability

The interrater reliability check was carried out to find how much agreement there was between the raters. There were 268 items in total (across the three participants and three tests) and out of these items, the raters agreed on 216 cases or 80.60%. Although interrater reliability greater than 80% would be desirable, judgements of partial knowledge are

difficult to agree on, so the 80% figure can be seen as acceptable, as any discrepancies went to a third rater.

Results

The mean score and the percentage of target words known before and learned after the reading treatment are reported in Table 2. The results show that incidental learning can occur from reading a single semi-authentic novel. This was in a context where a semi-authentic novel was read for pleasure, with no indication that the aim of the study was the learning of new vocabulary.

Table 2. Descriptive statistics

	Pre-test		Immediate post-test		Delayed post-test	
	M	%	M	%	M	%
	(out of 76)		(out of 76)		(out of 76)	
Participant 1	23	30.26	58	76.32	57	75.00
Participant 2	45	59.21	63	82.89	60	78.95
Participant 3	28	36.84	52	68.42	50	65.79

Table 2 shows that all participants made a considerable progress and the gains were durable, as illustrated by the scores from the delayed post-test. Participant 1 earned 23 points out of possible 76 points in the pre-test (30.26%), moving up to 58 points (76.32%) in the immediate post-test and 57 points (75.00%) in the delayed post-test. Participant 2 showed less progress than Participants 1 and 3 but this is probably due to the fact that her initial proficiency level was higher than that of the other two participants (see the Participants section) and therefore, she knew more items in the pre-test, so had half the chance to learn new items. She scored 45 (59.21%) points in the pre-test, 63 (82.89%) points in the immediate post-test and 60 points (78.95%) in the delayed post-test. Finally, Participant 3 showed similar gains to Participant 1. She earned 28 points (36.84%) in the pre-test, 52 points (68.42%) in the immediate post-test and 50 points (65.79%) in the delayed post-test.

Next, to explore the relationship between repetition and knowledge statistically, Spearman's rank correlation (data was not normally distributed) was performed between each participant's gain score per target item and the number of times each target items was repeated in the text. Gain scores (knowledge) were based only on the delayed post-test because the focus was on durable learning (Schmitt, 2010). To do this, the possibility of test effect needs to be taken into account. Nevertheless, since the participants did not know the content of the delayed post-test and they did not encounter the target items in the three weeks between the two testing sessions (this was later confirmed in the post-treatment interviews), the results are still a good indication of durable learning after three weeks of the first exposure to the treatment.

The correlations were positive for all three learners, but they only reached significance in the case of one learner. In case of Participant 1, there was no statistically significant relationship between knowledge and repetition ($r = .285$, n.s.). The same was true for Participant 3 ($r = .254$, n.s.). In contrast, for Participant 2, the correlation showed that there was a statistically significant relationship between test scores and repetition ($r = .587$, $r^2 = .345$, $p < .010$). Thus, the correlations showed only limited evidence for the relationship between repetition and learning, with the strength of the relationship varying between participants.

Next, the aim was to investigate how much knowledge of the target items was enhanced in real terms and to this end the target collocations were divided into 4 frequency groups (1-3, 5-8, 12-16, 20-25). Then, all the items each participant knew were eliminated (i.e., received 2 points) in the pre-test, because no further learning could be shown with the measurement instrument. Of the remaining items, it was tallied how much knowledge of these was enhanced in the delayed post-test, having scores increasing from $0 \rightarrow 1$, $0 \rightarrow 2$ and $1 \rightarrow 2$. The participants' improvement from the pre-test to the immediate post-test were not included because there was not any statistically significant difference between the two post-tests and the main focus was durable learning. Table 3 shows that knowledge of a very considerable number of target items was enhanced either partially or fully.

Table 3. Number of collocations where learning occurred

	Number of occurrences	Improvement	Delayed post-test
Participant 1		0 → 1	1
	1-3	0 → 2	1
		1 → 2	2
		Total	4/7
		0 → 1	2
	5-8	0 → 2	2
		1 → 2	3
		Total	7/9
		0 → 1	0
	12-16	0 → 2	4
		1 → 2	4
		Total	8/10
		0 → 1	0
	20-25	0 → 2	4
		1 → 2	1
		Total	5/6
	All items	0 → 1	3
		0 → 2	11
		1 → 2	10
		Total	24/32
Participant 2		0 → 1	1
	1-3	0 → 2	0
		1 → 2	1
		Total	2/4
		0 → 1	1
	5-8	0 → 2	1
		1 → 2	0
		Total	2/6
		0 → 1	0
	12-16	0 → 2	0
		1 → 2	2
		Total	2/3
		0 → 1	1
	20-25	0 → 2	4
		1 → 2	0
		Total	5/5
	All items	0 → 1	3
		0 → 2	5
		1 → 2	3
		Total	11/18
Participant 3		0 → 1	3
	1-3	0 → 2	0

	1 → 2	0
	Total	3/6
	0 → 1	1
5-8	0 → 2	3
	1 → 2	0
	Total	4/7
	0 → 1	1
12-16	0 → 2	4
	1 → 2	1
	Total	6/8
	0 → 1	1
20-25	0 → 2	2
	1 → 2	1
	Total	4/6
All items	0 → 1	6
	0 → 2	9
	1 → 2	2
	Total	17/27

The above table demonstrates that, in terms of the possible learning, all three participants made considerable progress. The number of items learned ranged from 11 to 24 (61.11% to 75%). Another interesting finding is the amount of full and partial knowledge. Of all the items, most of them were fully learned (24 '0 → 2' cases). This is quite an impressive finding that indicates that the learning that occurred was strong as well as durable. Fewer items were partially learned (12 '0 → 1' cases) or enhanced (15 '1 → 2' cases).

Lastly, the follow-up interviews showed that the participants all enjoyed reading the book very much and found it very interesting. In addition, all of them said that they used guessing from context as a strategy to deal with unknown items. Finally, all the participants said that they became aware of some of the target collocations, namely those that were inserted 20-25 times.

Discussion

This study looked at incidental acquisition of the figurative meanings of duplex collocations from reading a modified version of the authentic novel *Playing Dead*. The results of the descriptive statistics confirm that learners can incidentally acquire collocations from reading, thus supporting the findings of previous investigations (Webb et al., 2013; Pellicer-

Sánchez, 2017). In addition, this study found that knowledge of more than half of the target items (Table 3) that were unknown in the pre-test (32 items for Participant 1, 18 items for Participant 2 and 27 items for Participant 3) was enhanced either partially or fully in meaning. These figures suggest that much vocabulary acquisition is incremental (Schmitt, 2010), both in terms of learning new words/phrases as well as enhancing those that are partially known. The high percentages of learning compare favourably with other studies on incidental acquisition of collocations from reading, which have shown much smaller amounts of learning (e.g. Webb et al., 2013; Pellicer-Sánchez, 2017), although the difference may lie in the fact that these studies did not account for partial knowledge. However, they seem to be inconsistent with a study that employed a similar methodology (Pigada & Schmitt, 2006), in which the participant scored only 20.2% in meaning recall. This might be because the target words were presented in a decontextualised manner, which may have affected the recall of the meaning of these words.

This study may be a better reflection of the real vocabulary learning from reading for several reasons. First of all, the gains came from the reading treatment, because there was no exposure to the target words other than in the novel (confirmed in the post-treatment interviews). Second, all participants said they really enjoyed reading the novel, which would indicate that this is the type of novel they would read on their own. Third, this study reflects the real-life type of reading as the participants read for pleasure in their own time. Overall, the results of this study are very promising given that the measurement was productive in nature (meaning recall), while the participants only had receptive exposure to the collocations during the reading treatment. Therefore, in response to the first research question, the results of this study suggest that reading can enhance knowledge of the figurative meanings of duplex collocations and to quite a great extent in semi-authentic texts seeded with the instances of the same expressions.

The second research question asked whether more repetition would lead to more learning and the results suggest that the effects of frequency are not completely consistent. For example, for Participant 3 there were two items (*drop the ball* and *hit the roof*) in the 20-25 frequency group for which there was no learning at all. Interestingly, research on collocations has also shown varying effects of frequency, with some indicating significant differences between knowledge and repetition (Webb et al., 2013) and others

demonstrating a lack of such a relationship (Szudarski & Carter, 2016; Pellicer- Sánchez, 2017). Thus, this result reinforces the assertion that various factors collectively determine successful acquisition of figurative phrases (Boers, Lindstromberg & Eyckmans, 2014).

The post-reading interviews looked at the participants' state of mind, their motivation and their interests. Firstly, the participants were asked whether they enjoyed the book and found it interesting and they all reported that the book was very interesting and that they would like to read similar books. In fact, one of the participants asked the author to lend her another book from the same trilogy. Research suggests that novels increase learners' interest, enjoyment and engagement with the character and the plot (Currie, 1997) which in turn results in people being more receptive to learning. This suggests that the interest the book sparked in the participants undoubtedly helped, but that the same encouraging learning gains may not be replicated in a study with less interested learners.

Secondly, the participants were also asked what strategies they employed when they came across an unknown phrase. They could not use a dictionary as they were instructed not to do so, and they also did not ask anybody about the meaning of the unknown items. Instead, they said they tried to guess from the context. The target phrases in this study were inserted in places where they made sense in that context. For example:

'He didn't like Travis, who was from a family of <u>fat cats</u>. They had the kind of money that seemed to grow on trees. I didn't have the same advantages. We weren't poor by any stretch, but putting me through college and law school like my father planned would wipe out their savings account.'

"If you don't love me, tell me," he'd said. Divorce was foreign to him—his parents had <u>tied the knot</u> and were happily married for 40 years before his dad died —but he wouldn't live in a loveless house. He wouldn't keep her trapped just because they had a life together, a child together.

Looking at their gains, it can be speculated that they were successful in this strategy most of the time, however, as mentioned above, it seems this was not always the case.

To try to explain why there was no learning for some very frequent target items (20-25 frequency group), the initial encounters with these phrases were examined to evaluate the extent to which they may have overridden the initial erroneous interpretations (Appendix IV). For example, Participant 1 did not show any learning for the item *take a hike* even though it occurred 20 times in the text. Similarly, Participant 3 did not show any knowledge of two target items, *drop the ball* and *hit the roof*, occurring 20 and 23 times, respectively.

Participant 2 showed knowledge, both partial and full, of all the five target items she initially did not know in the pre-test. Therefore, in case of Participants 1 and 3, one of the explanations might be that they interpreted these phrases literally first, but when these did not make any sense, they went back and reread them or just skipped them and continued reading the story, thus compromising their understanding of this particular phrase. These initial wrong interpretations might have left a memory trace that - despite the subsequent numerous contexts which could perhaps have been more helpful in arriving at the correct figurative meaning – could not be erased.

Even though the participants reported they used guessing from context only, analysis of their responses suggests that they also tried to arrive (although unsuccessfully) at the figurative meaning through a literal reading of the component words. For example, Participant 1 said that the figurative meaning of the phrase *climb the wall* (which occurred 15 times in the novel) was 'to escape; to go away' whereas Participant 3 reported that the phrase *Big Brother* (occurred 7 times) meant 'people to support us; to help us; quite kind people and helpful people'. Boers and Webb (2015) point that the lexical composition of a figurative phrase can be deceptively transparent and consequently, lead to misinterpretation. Therefore, it can be assumed that the collocation *climb the wall* has erroneously activated a scene of someone climbing an actual wall and leaving or escaping, while the phrase *Big Brother* evoked an image of an older sibling who protects other, younger siblings. The analysis of the initial contexts in which these phrases occurred shows that it was impossible to interpret these phrases other than figuratively, e.g. *Don Professor Collier said that Oliver's thesis wasn't going well and he was climbing the wall* and so this clearly illustrates that context cannot be relied upon to override wrong initial interpretations of some figurative phrases. Concerning the expression *Big Brother*, another possible reason for the learner's misinterpretation might have been a lack of cultural knowledge. Big Brother comes from the novel 1984 by George Orwell and although many people, especially L2 learners, use the phrase without knowledge of its origin, it is most likely its use on Orwell's novel that dictates the meaning.

It is interesting to note that the participants interpreted some target collocations incorrectly in the pre-test and that some of these wrong guesses were not rectified during the treatment. This result is congruent with an earlier study by Pigada and Schmitt (2006) and

Haynes (1993), in which incorrect initial guesses were sustained even after the exposure. This was probably caused by cross-linguistic influence, i.e. by participants' L1s (Thai, Polish and Libyan). An example of such a misleading L1 counterpart is the Polish phrase *lay an egg* that means 'wait for something for a long time'. The Polish participant reported that a similar phrase existed in her L1 but did not produce a correct answer in either of the post-tests. One explanation for this particular phrase may be that this learner found her interpretation and the context somehow compatible as illustrated in the following example:

Matt forced Steve to the pavement and applied pressure on his shoulder wound. Steve was fading. The last thing he heard was the D.A. calling for an ambulance and backup.

The last thing he thought was *I laid an egg. I got a witness killed*.

Thirdly, the participants reported that they felt they learnt new vocabulary and were very pleased about that. This can be explained by the fact that the ability to learn a second language can also be influenced by their attitudes towards the target language. Ellis (1994) posits that the positive attitudes are typically connected to the speakers of L2 in question and the culture represented by its speakers. Such positive attitudes can be expected to enhance learning, because learners want to communicate with native speakers of the language they are learning.

Teaching implications

Research has shown that although idiomatic phrases are common as a class, they occur relatively infrequently on an individual basis in the written and oral discourse, which does not facilitate their incidental acquisition (Boers & Lindstromberg, 2009). As Webb et al. (2013) propose, unless reading materials are designed to ensure sufficient exposure to these phrases, the potential for learning them incidentally is small. This study suggests that the uptake rates that would mirror real life texts (1-3 occurrences) are actually not that 'small' (over 50% of gains) if we think of vocabulary acquisition as an incremental process that includes both partial and full knowledge. However, if materials are modified in such a way that idiomatic language is 'seeded' into the text at higher rates of recurrence, i.e.

adapted and manipulated, then there seems to be even more learning as knowledge of more than half of the target items were enhanced in case of each participant in this study.

Even though text seeding does seem to be effective, it has to be acknowledged that there are some limitations in terms of its practicality. To make sure that that the items are inserted in a natural way in a text, resourcefulness and native-like knowledge of the items are needed. Therefore, this implication might be more suitable for textbook writers who have the time and the resources, rather than for non-native teachers with limited resources.

Lastly, research suggests that figurative language makes up a large proportion of the language (e.g. Stengers, 2007), and so this intervention is unlikely to provide 'coverage' of the thousands of duplex collocations that occur in a language's lexicon.

Limitations

This study measured only meaning recall because conducting several tests of lexical knowledge was not possible for practical reasons. The question whether the same study design would lead to equally high gains at other mastery levels, i.e. form recall, is an interesting one for future research.

Also, prior knowledge of the words making up collocations may have had an effect on overall learning gains. In this study, the target collocations were made up of known words and this might have affected the degree to which the meaning of collocations was retained. Boers and Lindstromberg (2009) suggest that learners are more likely to notice collocations composed of unknown words because these are more noticeable in the input. On the other hand, when collocations are made up of known words, there may be more learning because the learner is not distracted by learning other word knowledge aspects (Webb et al., 2013). These contradictory views indicate the need for more research in this area.

The frequency groups were arbitrary and it is an empirical question whether, had the frequency bands been arranged differently, more frequency would have led to more learning.

It is uncertain whether the acquisition process in this study was truly 'incidental'. The participant engaged in an elaborate pre-test interview about the target collocations and it is likely that this had an awareness-raising effect. There is a possibility that the pre-test positively influenced intake and uptake of the figurative meanings of duplex collocations during reading. There is also a possibility that the pre-test prompted the participants to make a guess at the meaning of the items. If that guess was wrong, but left a trace in memory, this may have negatively interfered with the interpretation of the figurative expression during reading.

Finally, the results reported here are indicative of relatively advanced and highly motivated learners, who showed a high level of interest and engagement in the study. Therefore, it is not known if less proficient, less motivated learners would obtain similar results.

Conclusion

The results of the present study indicate that reading a text seeded with target items can lead to a substantial amount of incidental learning of the figurative meanings of duplex collocations. Moreover, the learning gains were durable as shown by the results from the post-test. Through one-to-one interviews, it was shown that repetition was not always statistically significant and that guessing from context and using the literal meanings appear to have influenced the intake rate to a certain extent. In conclusion, the results emphasise the complex process of acquiring L2 figurative knowledge and only future research can shed more light on different factors that influence this knowledge.

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Appendix I

Target items and frequency information

No	Target collocation	Number of occurrences in the text
1	Make noises	1
2	Wet blanket	1
3	Free ride	2
4	Acid test	3
5	Bend one's knee	3
6	Build bridges	3
7	White collar	3
8	Lay an egg	5
9	Open book	5
10	Small potatoes	5
11	Soft touch	5
12	Old hat	6
13	Run a mile	6
14	Big Brother	7
15	Carry weight	8
16	Hold one's breath	8
17	New blood	8
18	Open one's eyes	8
19	Red tape	8
20	Tie the knot	8
21	Brick wall	12
22	Fat cat	12
23	See the light	12
24	Bite one's tongue	13
25	Dead duck	14
26	Old hand	14
27	Pull the strings	14
28	Sore spot	14
29	Climb the wall	15
30	Not hold water	16
31	Red flag	16
32	Big wheel	20

33	Drop the ball	20
34	Kick the bucket	20
35	Take a hike	20
36	Hit the roof	23
37	Blue ribbon	25
38	Hit the road	25

Appendix II

Reading attitudes questionnaire

1)   How often do you read for pleasure in English on a weekly/monthly basis?

2)   Have you enjoyed reading the book?

3)   Who was your favourite character and why?

4)   What character did you not like?

5)   How long did it take you to read the book?

6)   How often did you read?

7)   Was the level of the book ok for you? In other words, did you find it difficult to understand? Was it difficult to follow the storyline? If yes, why?

8)   Did you have to read some parts of the book more than once in order to understand?

9)   Overall, was the book comprehensible, meaningful and interesting?

10)   Would you read another book like this?

11)   Were there many unknown words?

12)   Which strategies did you use for dealing with unknown words?

13)   Do you think you have learnt any of the unknown words?

14)   Did you notice any of the phrases from the interview (pre-test) and were they salient?

15)   Have you met any of these phrases in other contexts between the first (pre-test) and second interview (post-test) and during the reading time?

16)   Have you consulted a dictionary or asked anybody what these phrases meant during the reading time?

Appendix III

Definitions of the target collocations

1. *Big brother*

Literal meaning: An older brother

Figurative meaning: A person or organisation exercising total control over people's lives.

2. *Drop the ball*

Literal meaning: Let the ball fall to the ground

Figurative meaning: Make a serious mistake; mishandle things

3. *Old hat*

Literal meaning: A hat that is not new

Figurative meaning: Old-fashioned, dated

4. *New blood*

Literal meaning: Blood that is new

Figurative meaning: New people considered as a revitalising force, as in an organization

5. *Brick wall*

Literal meaning: A wall made of bricks

Figurative meaning: An obstacle; a problem or situation that is very difficult to solve

6. *Sore spot*

Literal meaning: A spot that is painful

Figurative meaning: A subject which someone would prefer not to talk about because it makes them angry or embarrassed

7. Take a hike

Literal meaning: Go on an extended walk for pleasure or exercise

Figurative meaning: Leave because one's presence is unwanted; go away

8. Soft touch

Literal meaning: Touch that is gentle

Figurative meaning: One who is easily persuaded or taken advantage of

9. Bend one's knee

Literal meaning: Form a curve in one's knee

Figurative meaning: Submit to authority

10. Blue ribbon

Literal meaning: A ribbon that is blue

Figurative meaning: Of superior or highest quality

11. Hit the road

Literal meaning: Come into contact with the road forcefully

Figurative meaning: Set out, as on a trip; leave

12. Build bridges

Literal meaning: Construct bridges

Figurative meaning: Improve relationships between people who are very different or do not like each other

13. Dead duck

Literal meaning: A duck that is not alive

Figurative meaning: A person or thing doomed to death, failure, etc. especially because of a mistake or misjudgement

14. Hold one's breath

Literal meaning: Not exhale

Figurative meaning: Wait expectantly or anxiously; wait or delay until something special happens

15. *Small potatoes*
Literal meaning: Potatoes that are small in size

Figurative meaning: Something insignificant or unimportant

16. *Red tape*
Literal meaning: A tape that is red coloured

Figurative meaning: Obstructive official routine or procedure; time-consuming bureaucracy

17. *Fat cat*
Literal meaning: A cat that is overweight

Figurative meaning: A wealthy and powerful person, especially a business person or politician

18. *Hit the roof*
Literal meaning: Come into contact with a roof forcefully

Figurative meaning: Get very angry and fly into a rage

19. *(Not) hold water*
Literal meaning: (Not) be able to contain water

Figurative meaning: (Not) appear to be valid, sound, or reasonable

20. *Old hand*
Literal meaning: A hand that is old in age

Figurative meaning: A person with a lot of experience in something

21. *Free ride*
Literal meaning: A ride that costs nothing

Figurative meaning: Something acquired without the ordinary effort or cost; an opportunity or advantage that someone gets without having done anything to deserve it

22. Red flag

Literal meaning: A flag that is red coloured

Figurative meaning: A warning of danger or a signal to stop

23. White collar

Literal meaning: A collar that is white coloured

Figurative meaning: Refers to employees whose job entails, largely or entirely, mental or clerical work, such as in an office

24. Big wheel

Literal meaning: A wheel that is big in size

Figurative meaning: A very important person

25. Acid test

Literal meaning: A test that measures the acidity of something

Figurative meaning: A decisive or critical test or situation

26. Open book

Literal meaning: A book that is open

Figurative meaning: A person or thing without secrecy or concealment that can be easily known or interpreted

27. Wet blanket

Literal meaning: A blanket that is wet

Figurative meaning: A dull or depressing person who spoils other people's enjoyment

28. *Climb the wall*

Literal meaning: Go up a wall

Figurative meaning: Be very agitated, anxious, bored, or excited

29. *Open one's eyes*

Literal meaning: Not keep one's eyes closed

Figurative meaning: Become or make someone aware of the truth of a situation

30. *Run a mile*

Literal meaning: Move swiftly on feet for a mile

Figurative meaning: Do anything to avoid a particular situation

31. *Bite one's tongue*

Literal meaning: Cut or tear your tongue with the teeth

Figurative meaning: Stop yourself from saying something because it would be better not to, even if you would like to say it

32. *Carry weight*

Literal meaning: Hold or support weight while moving

Figurative meaning: Have influence to a specified degree

33. *Lay an egg*

Literal meaning: Produce and deposit an egg

Figurative meaning: Do something bad or poorly; fail

34. <u>Kick the bucket</u>

Literal meaning: Strike a bucket with the foot

Figurative meaning: Die

35. <u>Make noises</u>

Literal meaning: Produce noises

Figurative meaning: Talk about something that you might do, but not in a detailed or certain way

36. <u>Pull the strings</u>

Literal meaning: Apply force to the strings so as to cause motion

Figurative meaning: Be in control of events or of other people's actions.

37. <u>Tie the knot</u>

Literal meaning: Fasten or secure a knot with or as if with a cord, rope, or strap

Figurative meaning: Get married

38. <u>See the light</u>

Literal meaning: Perceive the light with the eyes

Figurative meaning: Understand or realise something after prolonged thought or doubt.

Initial contexts of the very frequent phrases for which no learning occurred

Participant 1: *take a hike*

First encounter

"You'll major in biology, enroll in the premed program, then you can choose your discipline. Surgery would be the smart decision." As if he wasn't smart enough to figure out his father wanted him to follow in his big, fat footsteps.

He had no desire to go into medicine. He'd tell his father to ***take a hike***. Someday. He should have done it a long time ago.

Second encounter

"Why would I help you? I could lose everything I've built since you went to prison," she said. "My career, my PI license, my home. I don't want to go to jail."

"Claire. Please."

The quiet plea twisted her heart. "***Take a hike***. Leave me alone."

"I don't have anyone else," he whispered.

Third encounter

The Feds had made it perfectly clear to Claire that she needed to report any contact from her father, or be considered an accomplice. They'd threatened her—jail time, loss of her private investigator's license, her concealed-carry weapons permit. Her dad said that Big Brother was still watching her. Agent Donovan had come around a couple times, but it was routine. She'd answered his questions and told him to ***take a hike*** each visit. She didn't think they had someone on her 24/7 after the first two weeks since the quake, but maybe she was wrong.

Fourth encounter

Tom didn't touch anything. The man's face was turned away from the door. Barely breathing, Tom walked around the bed to look at his face. Pent-up rage ate at his gut. He would have yelled at Lydia had she been alive. He'd been prepared to confront her and her lover. Tell her to ***take a hike***. Now? Guilt and anger battled with a surreal sense that this could not be happening.

Tom stared at the dead man, one eye full of blood from the bullet behind it. But Tom recognized him—a man he'd never met personally but had seen in action in the courtroom. A prosecutor, Chase Taverton.

Fifth encounter

If she hadn't called her father to rat out her mother's infidelity, her mother would be alive and her father would never have gone to prison. They might have divorced, they might have hated each other, but they would both still be in her life.

When Oliver Maddox came to her to ask her to help with an appeal of her dad's case, she told him to **take a hike**. She'd been at the trial. She'd walked into the house only minutes after her father killed two people. Maddox said, "There's a chance your dad was framed. And I think I can prove it."

Participant 3: *drop the ball* and *hit the roof*

Drop the ball

First encounter

Warehouses sometimes burned down by accident. A careless employee left a cigarette butt burning, lightning struck, homeless people tried to get warm in the frigid Sacramento winters.

But accidents were rare.

The building owner had **dropped the ball**, Claire thought as she walked around taking pictures and notes. There was no evidence of burned goods. They could have been stolen before the arson, but Claire suspected the merchandise had never arrived or had been sold before the arson.

Second encounter

That first time, Lydia had cried and begged for Tom's forgiveness. She'd met the cop at the hospital where she worked as an emergency-room nurse. It was the adrenaline of the moment, she claimed, she didn't know why she had let it continue. Tom forgave her. Lydia had seemed so sincere.

*But that horrible day, knowing she was in his bed with another man, the insidious self-loathing returned. That voice that said, "You're a sucker. You **dropped the ball**. She cheated on you once, Tommy Boy, you knew she was just making noises about changing."*

Third encounter

Everyone knew that he and Supervisory Special Agent Megan Elliott had tied the knot, but were no longer married. It wasn't like he had announced it, but Meg insisted that everything be on the up-and-up when Mitch came on board.

It was no one's damn business, as far as Mitch was concerned. They'd **dropped the ball**; it was over, no one needed to know anything more.

Fourth encounter

He still had respect for Meg. Hell, Mitch liked her a lot. They'd met at Quantico, when they both were new blood, become good friends because of common interests, and ended up in Kosovo together four years later, digging through mass graves as part of a national evidence response team. When they returned to America six weeks later, they both felt out of touch with everyday concerns. The weight of Kosovo tormented them, and they turned to each other for solace. They were two busy people with the same career and they thought that tying the knot was the answer to loneliness.

They were wrong. They **dropped the ball** in the end**. The marriage officially ended three years later.

Fifth encounter

The police would look at the obvious: her idiot husband. When the assassin told Harper about his plan to take out both Taverton and his lover, within twelve hours Harper learned that O'Brien worked solo. He was normally a training officer, but had no new blood currently assigned to him.

He could still ***drop the ball***. *O'Brien could be on a call. Taverton could cancel his rendevous. But the assassin took comfort in the fact that he wasn't connected to anyone and could slip away. If it all went south and the blackmailers exposed him, he'd have to disappear and assume another identity.*

Hit the roof

First encounter

"Before you escaped from prison? Let's call a spade a spade, Daddy, okay? No time to build bridges. No bullshit. You're an escaped killer and they'll shoot first, and frankly, no one gives a shit about your answers."

Claire's insides were twisted and burning. She **hit the roof**. She'd never talked to her father like that, had never raised her voice or sworn at him.

Second encounter

Trying to come up with a lame excuse or lie would only damage Mitch's friendship with Steve. "You knew I was looking into O'Brien's case."

"I didn't think you were playing with O'Brien's daughter."

"It's not like that, Donovan."

"Don't jerk me around, Bianchi. You're playing a dangerous game here. Meg will ***hit the roof*** if she finds out you're working the O'Brien case after you were removed. The only reason you're on this assignment is because you're the only diver we have in-house."

Third encounter

The assassin was not happy.

He drove fast, away from the opulent, gated mansion where he'd just met with two of the three men who'd blackmailed him into murder. They called him "our assassin" and it made him ***hit the roof***. Not that they thought of him as an "assassin," but because they considered him their *property*.

Fourth encounter

But everything would come crashing down if Thomas O'Brien wasn't stopped. And now that Oliver Maddox's body had been found, there could be other people looking into things better left dead and buried.

What had made him ***hit the roof*** was his blackmailers' reaction to the discovery in the river. That they felt Claire had to be watched, that she would be a threat if she got wind of what that idiot Maddox had been working on.

Fifth encounter

"My dad was a cop. He put his gun in the same place every night. He checked it religiously. He kept his in a holster attached to the side of the bed. He would never have put it in the wrong place. Ever."

"I could have been in a rush," Tom said, using the prosecution's argument." I ***hit the roof***. Not thinking. Heard Claire come in. Or, as in the closing statement, was trying to cast doubt that I was the killer."