Have you ever reconnected with someone from your past? Read the web article about twins who lived apart for many years. What surprised the twins when they reconnected?

Twins, especially identical twins, have always fascinated scientists. Identical twins develop from one egg, have identical DNA, and are usually very similar in appearance and behavior. There have been many studies of identical twins raised in the same family. There have also been a number of studies of identical twins separated at birth and raised in separate families. These studies have provided interesting information about the impact of nature (genetics) and nurture (the environment) on the development of the individual. However, some of the studies have been controversial.

Take the case of Elyse Schein and Paula Bernstein. Elyse and Paula were identical twins separated at birth. Both girls knew that their parents had adopted them as infants, but neither girl knew about her twin. When Elyse grew up, she longed to meet her biological mother, so she contacted the agency that had arranged the adoption. She had been doing research on her birth mother when she made a surprising discovery. She had an identical twin. Even more surprising, she learned that she had been part of a secret scientific study. At the time of the adoption, the agency had allowed different families to adopt each twin. The agency had told the families that their child was part of a scientific study. However, it had never told the families the goal of the study: for scientists to investigate nature versus nurture.

1 identical: exactly the same | 2 DNA: the abbreviation for deoxyribonucleic acid, a chemical that controls the structure and purpose of every cell | 3 controversial: causing or likely to cause disagreement
When Elyse and Paula finally met as adults, they were amazed. They had many similarities. They looked almost identical. They had both studied film. They both loved to write. Together, the twins discovered that the researchers had stopped the study before the end because the public strongly disapproved of this type of research.

Although that study ended early, many scientists today make a strong case for the dominant role of nature. Schein and Bernstein agree that genetics explains many of their similarities. However, recent research suggests that nurture is equally important. It is clear that the nature versus nurture debate will occupy scientists for years to come.

‘dominant: more important, strong, or noticeable

B Comprehension Check Answer the questions.
1. What was surprising about the twins’ adoption?
2. What characteristics and interests did Elyse and Paula have in common?
3. What is the nature versus nurture debate?

C Notice Underline the verbs in each sentence.
1. Both girls knew that their parents had adopted them as infants.
2. She had been doing research on her birth mother when she made a surprising discovery.
3. She learned that she had been part of a secret scientific study.

Which event happened first in each sentence? What event followed? Write the verbs. What do you notice about the form of the verbs?

1. First: ___________________________ Then: ___________________________
2. First: ___________________________ Then: ___________________________
3. First: ___________________________ Then: ___________________________

2 Past Perfect

Grammar Presentation

The past perfect is used to describe a completed event that happened before another event in the past.

Elyse finally met her sister, Paula. Paula had been married for several years. (First, Paula got married; Elyse met Paula at a later time.)
### 2.1 Forming Past Perfect

Form the past perfect with *had* + the past participle of the main verb. Form the negative by adding *not* after *had*. The form is the same for all subjects.

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elyse and Paula did not grow up together. They <em>had lived</em> with different families. They were available for adoption because their birthmother <em>had given</em> them up. &quot;Had she <em>talked</em> about the study to anyone at the time?&quot; &quot;No, she <em>hadn’t</em>.&quot; &quot;What <em>had</em> you <em>heard</em> about this study before that time?&quot; &quot;I’d heard very little about it.&quot;</td>
<td></td>
</tr>
</tbody>
</table>

> Irregular Verbs: See page XX.

### 2.2 Using Past Perfect with Simple Past

#### a. Use the past perfect to describe an event in a time period that leads up to another past event or time period. Use the simple past to describe the later event or time period.

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>She <em>learned</em> that she <em>had been</em> part of a secret study.</td>
<td><em>She learned</em> that she <em>had been</em> part of a secret study.</td>
</tr>
<tr>
<td>The twins <em>discovered</em> that they <em>had both studied</em> psychology.</td>
<td>The twins <em>discovered</em> that they <em>had both studied</em> psychology.</td>
</tr>
</tbody>
</table>

#### b. The prepositions *before, by, or until* can introduce the later time period.

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Their mother <em>had known</em> about the study <em>before</em> her death.</td>
<td><em>Their mother had known</em> about the study <em>before</em> her death.</td>
</tr>
<tr>
<td>Sue <em>hadn’t met</em> her sister <em>until</em> last year.</td>
<td>Sue <em>hadn’t met</em> her sister <em>until</em> last year.</td>
</tr>
<tr>
<td><em>Studies on twins had become</em> common <em>by</em> the 1960s.</td>
<td><em>Studies on twins had become</em> common <em>by</em> the 1960s.</td>
</tr>
</tbody>
</table>

#### c. The past perfect is often used to give reasons or background information for later past events.

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>She was late</em>. <em>She had forgotten</em> to set her alarm clock.*</td>
<td><em>She was late</em>. <em>She had forgotten</em> to set her alarm clock.*</td>
</tr>
<tr>
<td><em>He had never taken</em> a subway before he <em>moved</em> to New York.</td>
<td><em>He had never taken</em> a subway before he <em>moved</em> to New York.</td>
</tr>
</tbody>
</table>
In writing, these verbs are commonly used in the past perfect: come, have, leave, make, and take. 

*Had been* is the most common past perfect form in speaking and writing.

<table>
<thead>
<tr>
<th><strong>Data from the Real World</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Past Perfect and Past Perfect Progressive</strong></td>
</tr>
</tbody>
</table>

The twins **had not gone** to the same school as children.
The family thought that they **had made** the right decision.
Psychologists praised the study because the researchers **had been** very careful in their work.
The researchers **had not been** aware of each other’s work on twins until they met.

---

**Grammar Application**

**Exercise 2.1 Past Perfect**

Complete the sentences about twins who met as adults. Use the past perfect form of the verbs in parentheses.

1. Two separate Illinois families **had adopted** (adopt) Anne Green and Annie Smith before the twins were three days old.
2. When they met, they were fascinated by their similarities. For example, they **lived** (live) near each other before the Greens moved away.
3. As children, both Anne and Annie **went** (go) to the same summer camp.
4. Anne **did not go** (go) to college, and Annie **did not attend** (not / attend) college, either.
5. Both **married** (marry) for the first time by the age of 22.
6. Anne **got** (get) divorced and **remarried** (not / get divorced and remarried). Annie **did not get** (not / get) divorced and was still married.
7. Both Anne and Annie were allergic to cats and dogs and **never owned** (own) pets.
8. Both **gave** (give) the same name – Heather – to their daughters.
9. Both **previously worked** (work) in the hospitality industry.
10. Anne **worked** (work) as a hotel manager. However, Annie **did not work** (not / work) in hotels; she **was** (be) a restaurant manager.
Exercise 2.2 Past Perfect and Simple Past

A Read the article about a famous twin study. Underline the simple past forms. Double underline the past perfect forms.

The University of Minnesota is the birthplace of one of the most important twin studies in the world. It started in 1979. Thomas J. Bouchard had already been on the faculty of the university for some time when he began his study of identical twins. Bouchard read an article about a set of twins who had been separated at birth. The twins had recently met and had found many similarities. They found out that they had lived near each other for years. Bouchard was amazed by the twins’ story and decided to start the Minnesota Twins Reared Apart Study. Bouchard began to study sets of twins that had been separated at birth. Over the years, the Minnesota Twins Reared Apart Study has studied more than 8,000 sets of twins. The study continues today.

'faculty: the people who teach in a department in a school

B Pair Work Compare your answers with a partner. Discuss the reason for each of your answers.

In line 2, had been refers to the first event. Dr. Bouchard joined the faculty before the twin study. The twin study began later. The study is the second event, so started is in the simple past.

Exercise 2.3 More Past Perfect and Simple Past

A Listen to an interview with twins who are actors. Complete the sentences with the verbs you hear.

Claudia Today, I’m interviewing Alex and Andrew Underhill. They appear in the Spy Twins movie series based on the books of the same name. How did you get the part in the first Spy Twins movie?

Alex A friend had seen (1) the advertisement in the newspaper and later (2) us about it. We (3) any acting before then, but we (4) to try out anyway.
**Claudia** How many twins were at the audition?

**Andrew** When we got there, we [5] ( ) that about five other sets of twins [6] ( ) for the audition.

**Alex** We also noticed that all the twins were wearing matching outfits. Until that audition, we [7] ( ) never [7] ( ) the same clothes in our whole lives. We decided to run out to the nearest shopping mall to buy some matching clothes. The audition [8] ( ) just [9] ( ) when we [9] ( ) .

**Claudia** [10] ( ) you [10] ( ) the *Spy Twins* novels before your audition?

**Andrew** Yes. The third book [11] ( ) when we [12] ( ) to the first audition.

**Claudia** What’s it like being twins? Are you two close? Do you do the same things?

**Alex** Yes, in lots of ways.

**Andrew** We definitely think the same way.

**Alex** Right! Once, we took the same test in school. Of course, we were in the same grade, but we had different teachers. We had exactly the same answers correct, even though we [13] ( ) in the same classroom!

**Claudia** Wow! I guess you’re a lot alike in many ways! Well, thanks, Alex and Andrew. It’s been great talking with you.

**B** [Listen again and check your answers.](#)
Exercise 2.4 Using Past Perfect

A Use the time line to complete the sentences about Alex and Andrew. Use the past perfect form of the verbs in the box.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The twins are born.</td>
<td>The twins audition for the first Spy Twins movie.</td>
<td>They record their first pop song and make a TV movie.</td>
<td>The twins start a fashion company for young men’s clothing.</td>
<td>The twins make three more Spy Twins movies.</td>
<td>They graduate from high school; they start college.</td>
<td>The twins decide to stop acting.</td>
<td>They graduate from college.</td>
<td>They work as fashion designers for their clothing company.</td>
</tr>
</tbody>
</table>

1. By 2004, Alex and Andrew **had made** four Spy Twins movies.
2. Before 1995, the twins __________________________ (not) a pop song.
3. By 2006, the twins __________________________ to stop acting.
4. The twins __________________________ (not) a fashion company yet in 1995.
5. The twins __________________________ from high school by 2005.
6. They __________________________ a successful career before the age of 30.

B Over to You Make a time line about yourself from your birth to the present. Write five sentences about your life. Use the past perfect with before, by, and until.

3 Past Perfect with Time Clauses

Grammar Presentation

The past perfect is often used with time clauses for events that occurred in an earlier time period leading up to a later event or time period.

By the time Elyse discovered her sister, people **had forgotten** about the twin study.
3.1 Order of Events

<table>
<thead>
<tr>
<th>a. Use time clauses to show two separate past time periods. Use the past perfect to signal an event that occurred in an earlier time period.</th>
<th>Elyse had moved by the time the researchers called her.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The time words after, before, by the time, until, and when can introduce the time clauses.</td>
<td>After they had met, they noticed their many similarities. Until Elyse started her research, she hadn’t known about the twin study.</td>
</tr>
<tr>
<td>b. With before and after, the past perfect is not always necessary because the order is clear. In this case, the past perfect emphasizes the earlier time period.</td>
<td>Elyse moved before she met her twin. OR Elyse had moved before she met her twin.</td>
</tr>
<tr>
<td>c. In time clauses with when, the use of past perfect in the main clause usually shows a good amount of time between events.</td>
<td>When Paula met Elyse, she had already learned about the research. (She learned about the research. She met Elyse some time later.)</td>
</tr>
<tr>
<td>The use of the simple past in both clauses shows that one event happened very soon after the other.</td>
<td>When Paula met Elyse, she learned about the research. (She learned about the research very soon after she met Elyse.)</td>
</tr>
</tbody>
</table>

Grammar Application

Exercise 3.1 Order of Events

A Read the blog entry about twin studies. Underline the past perfect form of the verbs.

**Twin World by Cory Daniels**

I had thought about including my twins in a study until I read about one woman’s experience.

Ana had been interested in the study of twins all her life. Ana was a twin herself, and she had twin boys.

Before her twins were born, she had read a lot about twin studies. After she had done a little research, Ana found an early reading study for twins. It sounded like a useful study. It looked at the role of genetics and environment in developing reading skills. She contacted the researchers and learned that she had to wait until the twins were four years old. When she enrolled the twins in the study, she hadn’t known that the twins needed to give a DNA sample to prove they were twins. As soon as Ana learned this, she took the twins out of the study. Ana thought that taking a DNA sample was an invasion of her children’s privacy.

When I read about her experience, I decided not to put my twins in a study after all.
B **Pair Work** Discuss why the past perfect is used in each case in A. Then find the two sentences with time clauses that describe two events that happened at the same time or almost the same time. What is the form of the verbs in these sentences?

**Exercise 3.2 Time Clauses**

Complete the article about siblings¹ who were separated as children. Circle the correct time word. Write the simple past or past perfect form of the verbs in parentheses. Sometimes more than one answer is possible.

¹sibling: a brother or sister

There are many stories of non-twin brothers and sisters who are separated for one reason or another and meet again as adults. Here are a few.

Glenn Mint and Bruce Mathews are brothers. They had never met until/after Glenn started (start) working at the same company as Bruce. Bruce was surprised because the new employee looked just like him. They started asking each other questions. Before/After they met, each man ______________ (know) that he had a sibling. Before/As soon as Glenn ______________ (discover) Bruce’s birth date, he knew Bruce was his long-lost brother.

Quin Mara, 82, knew that she was adopted and that she had siblings, but she had never met them. After/Until a relative ______________ (find) a family tree,¹ Quin learned the names of her siblings and started looking for them. Until/By the time she saw the family tree, she ______________ (not / know) that she was the youngest of nine children. As soon as/Before she ______________ (discover) that, she began to look for her brothers and sisters. She was very happy because five of her siblings were still alive. Before/After she ______________ (meet) them, she didn’t know that they had spent the last several decades looking for each other.
Exercise 3.3 Combining Sentences

Read the story about how environment affects personality. Combine the sentences with the time words in parentheses. Use the past perfect and simple past.

1. Diego and Shannon were married for a few years. Then they decided to have a baby.
   (when) When Diego and Shannon had been married for a few years, they decided to have a baby.

2. Diego and Shannon did not think much about the nature versus nurture debate. Then their first child, Mario, was born.
   (until) __________________________________________________________

3. Diego and Shannon didn’t have much experience with music. Then they became parents.
   (before) _________________________________________________________

4. Three-year-old Mario saw an electronic keyboard in a shop. Then he asked his parents to buy him one.
   (after) __________________________________________________________

5. Diego and Shannon heard Mario playing the keyboard. Then they realized their son’s musical talent.
   (when) _________________________________________________________

6. Diego and Shannon realized Mario’s talent. Then they enrolled him in piano classes.
   (as soon as) _______________________________________________________

7. Diego and Shannon enrolled Mario in piano classes. Then Mario became an excellent musician.
   (after) __________________________________________________________

8. Mario took a few years of piano classes. He started composing music.
   (by the time) ____________________________________________________
# 4 Past Perfect Progressive

## Grammar Presentation

The past perfect progressive emphasizes the ongoing nature of a past activity or situation leading up to a more recent past time.

<table>
<thead>
<tr>
<th>The past perfect progressive emphasizes the ongoing nature of a past activity or situation leading up to a more recent past time.</th>
<th>Living with a roommate was hard for me in the beginning. <em>I had been living</em> alone for years.</th>
</tr>
</thead>
</table>

### 4.1 Forming Past Perfect Progressive

Form the past perfect progressive with *had* + *been* + -*ing* form of the verb. Form the negative by putting *not* between *had* and *been* or using the contraction *hadn’t*.

<table>
<thead>
<tr>
<th>Form the past perfect progressive with <em>had</em> + <em>been</em> + -<em>ing</em> form of the verb. Form the negative by putting <em>not</em> between <em>had</em> and <em>been</em> or using the contraction <em>hadn’t</em>.</th>
<th><em>She knew Boston well when I visited her. She’d been living</em> there for years. <em>When my brother visited me, I had not / hadn’t been living</em> there long.</th>
</tr>
</thead>
</table>

### 4.2 Using Past Perfect Progressive

**a.** Use the past perfect progressive for an action or situation that continued up to an event or situation in past time. This can show a reason or give background information.

<table>
<thead>
<tr>
<th>Use the past perfect progressive for an action or situation that continued up to an event or situation in past time. This can show a reason or give background information.</th>
<th><em>He looked tired because he had been working</em> all night. <em>My eyes were sore because I hadn’t been wearing</em> my contacts.</th>
</tr>
</thead>
</table>

**b.** With some verbs such as *live, play, teach, wear, and work*, use either the past perfect or past perfect progressive. The meaning is similar.

<table>
<thead>
<tr>
<th>With some verbs such as <em>live, play, teach, wear, and work</em>, use either the past perfect or past perfect progressive. The meaning is similar.</th>
<th><em>The twins had lived</em> in different cities before they <em>discovered</em> each other. OR <em>The twins had been living</em> in different cities before they <em>discovered</em> each other.</th>
</tr>
</thead>
</table>
Grammar Application

Exercise 4.1 Past Perfect Progressive

Complete the story about brothers who reconnected after many years. Use the past perfect progressive form of the verbs in parentheses.

Mark and Peter were brothers. Their parents could not take care of them. One family adopted Mark, and another family adopted Peter. Mark and Peter **had been dreaming** (dream) of finding each other since 2005. When they finally met, they were surprised by how much they had in common. For most of their adult lives, their jobs had been related, even though they had **not / work** in the same business. Mark **make** (make) furniture, and Peter **sell** (sell) furniture. Mark **interview** (interview) for jobs in furniture stores and decided to take a position at Mark’s store. Peter **talk** (talk) to a customer when he saw a man who looked like him walk into the store. Peter stopped what he **do** (do) and introduced himself. That first day, Peter and Mark talked for hours. They found out that they **not / live** (not / live) in the same city, but they had attended schools in the same district for most of their childhood. They **cross / paths** (cross / paths) for many years without ever meeting. They had never expected to have so much in common.
Exercise 4.2 Past Perfect Progressive, Past Perfect, or Simple Past?

A Complete the interview with a woman who found her three siblings after many years. Use the past perfect progressive, the past perfect, or the simple past form of the verbs in parentheses. Use contractions when possible. Sometimes more than one answer is possible.

Vijay Tell us how you found your family.

Paula I’d been looking (look) for my sister all my life. I (not / have) much luck, though. Then one day, I turned on the TV. A talk show was on. The host of the show was interviewing three siblings – two brothers and a half sister.1 Different families (adopt) the siblings many years before.

Vijay And?

Paula They (talk) about me before I turned on the program. The siblings had recently reunited, and they (search) for a fourth sibling for the past several months. I called the TV station, and we all finally (meet).

Vijay So, you (look) for a sister all your life, and you found three siblings!

Paula Yes, it was wonderful! We all met at one of the network offices the following week.

After we (speak) for a while, it was obvious to me that they (look) for me all their lives, too.

Paula 1 half sister: a sister who is biologically related by one parent only

B Pair Work Discuss these questions with a partner.

• Choose sentence in A in which you can use either the past perfect or the past perfect progressive. Why are both possible here?

• In which sentence in A is only the past perfect correct?

C Over to You Do an online search for twins, siblings, or other family members who reunited after many years. Write five sentences about their experiences. Use the past perfect and the past perfect progressive.
Avoid Common Mistakes

1. Use the past perfect or past perfect progressive to give background information for a past tense event.

   had
   I have never seen my sister in real life, so I was nervous the first time we met.
   had been dreaming
   I have dreamed about meeting her, and I finally did.

2. Use the past perfect or past perfect progressive to give a reason for a past event.

   had been crying
   Her eyes were red and puffy because she cried.

3. Use the past perfect (not the past perfect progressive) for a completed earlier event.

   arranged
   They had been arranging a time to meet, but both of them forgot about it.

4. Use the past perfect (not present perfect) to describe a completed event that happened before a past event.

   had
   I have visited her in Maine twice before she came to visit me.

Editing Task

Find and correct seven more mistakes in the paragraphs about sibling differences.

I have never really thought about sibling differences until my own children were born. When we had our first child, my husband and I have lived in Chicago for just a few months. We have not made many friends yet, so we spent all our time with our child. Baby Gilbert was happy to be the center of attention. He depended on us for everything.

By the time our second son, Chase, was born, we have developed a community of friends and a busier social life. We frequently visited friends and left the children at home with a babysitter. As a result of our busy schedules, Chase was more independent. One day I had just been hanging up the phone, when Chase came into the room. Chase picked up the phone and started talking into it. I thought he was pretending, but I was wrong. He had been figuring out how to use the phone!

When my husband came home, he was tired because he worked all day. When I told him about Chase’s phone conversation, though, he became very excited. Gilbert has never used the phone as a child. At first, we were surprised that Chase was so different from Gilbert. Then we realized that because of our busy lifestyles, Chase had learned to be independent.
Using Past Perfect to Provide Background Information and Reasons

Writers use the past perfect to provide background information and reasons for past situations and actions. Read these examples:

I had always thought that I was an only child, but I recently discovered that I have a sister. My parents had given me up for adoption. When I was 15, I decided to find my biological parents.

Pre-writing Task
1 Read the paragraph. What does the writer believe about the influence of the environment on relationships? What example does the writer use to explain this?

The Effects of Friends on Sibling Relationships

I believe that the experiences that a person has outside the home can be as influential as experiences inside the home. Examples of this are siblings who start out very similar but become very different from one another as they grow older. For example, Andy and Frank are two brothers who are only two years apart. They did everything together and were best friends until they started junior high. After Andy had been in seventh grade for a little while, he started to change. He had made new friends at school, so he and Frank did not see each other much during the day. Frank had made new friends, too. In fact, Andy’s new friends did not like Frank very much, so Andy did not feel comfortable asking Frank to spend time with them. By the time Andy and Frank were in high school, they had grown very far apart. They had made different friends and they had developed different interests. They had been similar when they were young, but Andy and Frank had very little in common as young adults.

2 Read the paragraph again. Underline the sentences that contain both simple past and past perfect verbs. Double underline the sentences with verbs only in the past perfect. Circle the time clauses. Notice how the time clauses help clarify the earlier time period.
Writing Task

1 Write Use the paragraph in the Pre-writing Task to help you write about different conditions that influence people’s behavior. Give examples from events and situations you have observed to support your opinion.

2 Self-Edit Use the editing tips to improve your paragraph. Make any necessary changes.
   1. Did you use the past perfect to give background information and provide reasons?
   2. Did you use time words and time clauses to clarify the time periods in your sentences or emphasize that some events happened earlier than others?
   3. Did you avoid the mistakes in the Avoid Common Mistakes chart on page 59?