In [1]:
```
%matplotlib inline
import pandas as pd
import numpy as np
```

In [2]:
```
df = pd.read_csv("survey.csv")
df.head()
```

Out[2]:

	Timestamp	What is your gender?	Would you consider yourself an introvert or an extrovert?	Do you typically go out in a group or alone?	In general how safe do you feel doing everyday activities?	Are there activities you are likely to do alone?	Are there activities you are unlikely to do alone?	Does the time of day affect your decision on going out?	Do t locati affe yo decisi goi ou
0	4/9/2022 11:16:38	Male	Extrovert	Group	3	Going to the gym	Running at night	Yes	Y
1	4/9/2022 11:31:00	Female	Introvert	Alone	2	Grocery store	Go on a walk, mall	Yes	Y
2	4/9/2022 11:33:46	Male	Extrovert	Group	5	Working out	Clubbing, playing sports, gaming	Yes	Y
3	4/9/2022 11:52:58	Female	Introvert	Group	2	Go to work, study and go to the store	I don't exercise or go on walks by myself.	Yes	Y
4	4/9/2022 22:10:42	Female	Introvert	Alone	2	Yes only because I have to	Going anywhere at night, parties, hiking, trav...	Yes	Y

5 rows × 21 columns

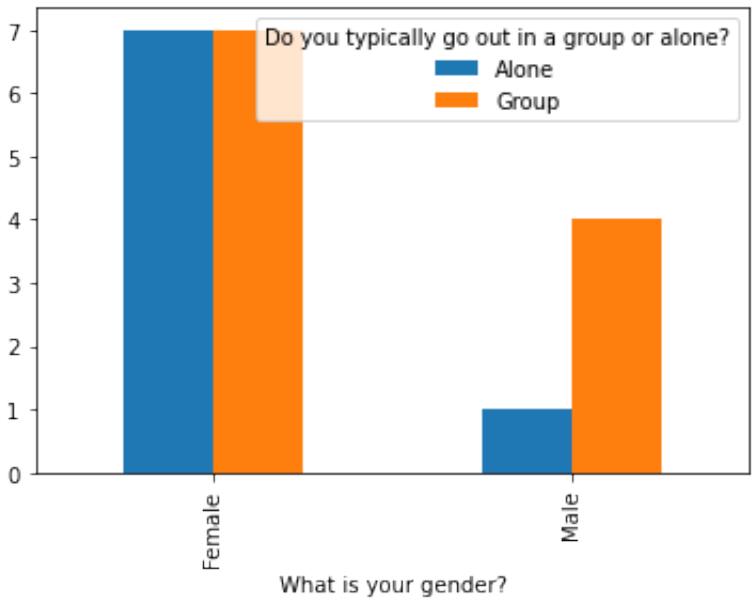
In [3]:
```
group_Corr = pd.crosstab(df["What is your gender?"], df["Do you typically go
group_Corr
```

Out[3]:

Do you typically go out in a group or alone?	Alone	Group
What is your gender?		
Female	7	7
Male	1	4

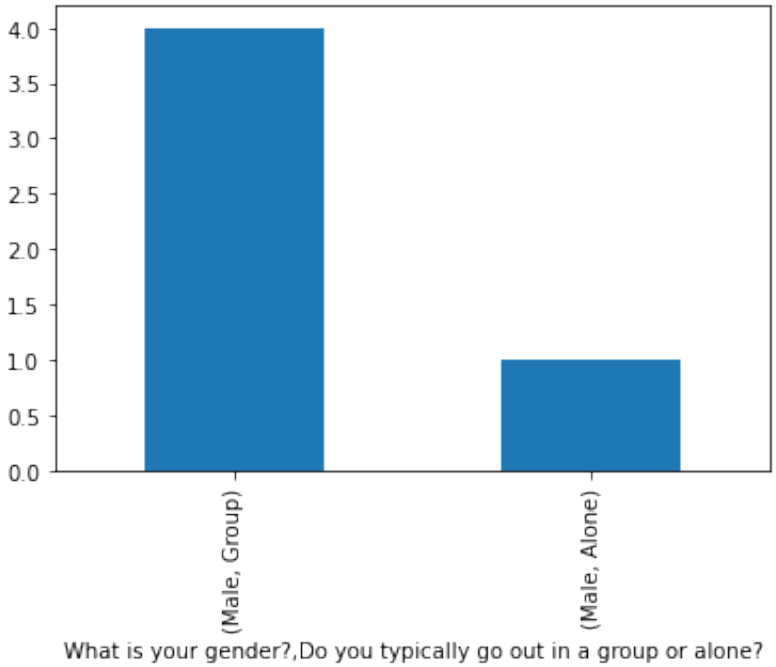
In [4]:
```
group_Corr.plot.bar()
```

Out[4]:
```
<AxesSubplot:xlabel='What is your gender?'>
```



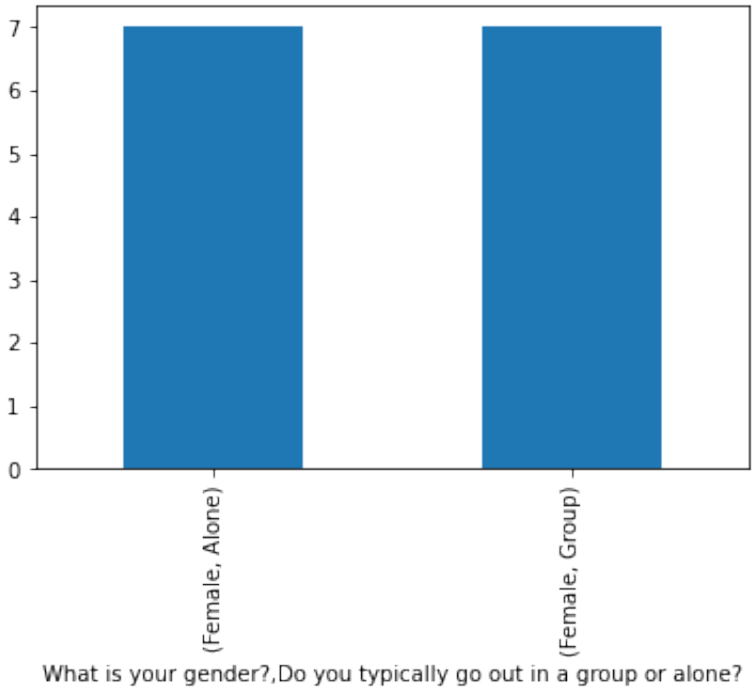
In [5]:
```
df2 = df[(df["What is your gender?"]=='Male')]
ManGender = df2.groupby("What is your gender?")["Do you typically go out in a
ManGender
```

Out[5]:
```
<AxesSubplot:xlabel='What is your gender?,Do you typically go out in a group o
r alone?'>
```



In [6]:
```
df3 = df[(df["What is your gender?"]=='Female')]
FemGender = df3.groupby("What is your gender?")["Do you typically go out in a
FemGender
```

Out[6]:
```
<AxesSubplot:xlabel='What is your gender?,Do you typically go out in a group o
r alone?'>
```



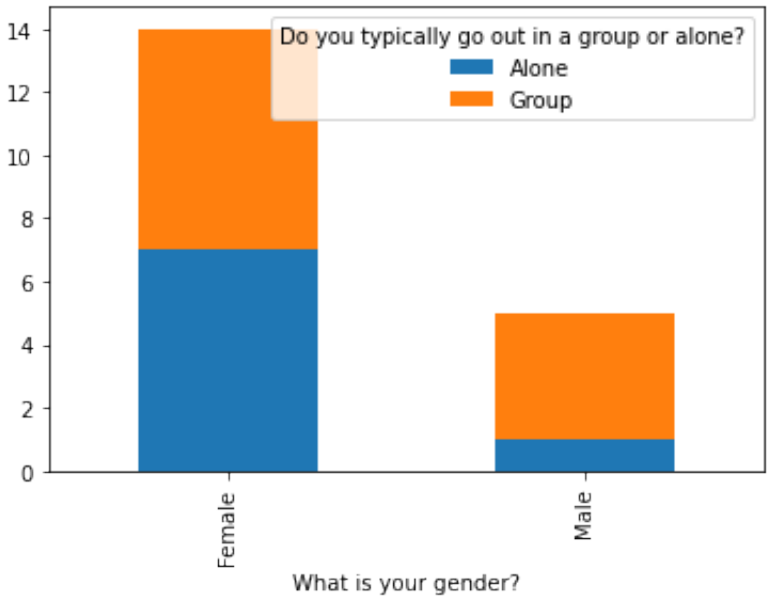
In [7]:
```
genderscross = pd.crosstab(df["What is your gender?"], df["Do you typically g
            normalize=True, margins=True)
genderscross
```

Out[7]:

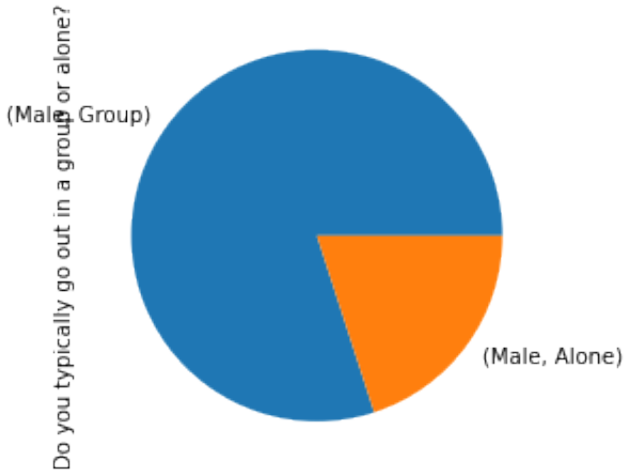
Do you typically go out in a group or alone?	Alone	Group	All
What is your gender?			
Female	0.368421	0.368421	0.736842
Male	0.052632	0.210526	0.263158
All	0.421053	0.578947	1.000000

In [8]:
```
group_Corr.plot.bar(stacked=True)
```

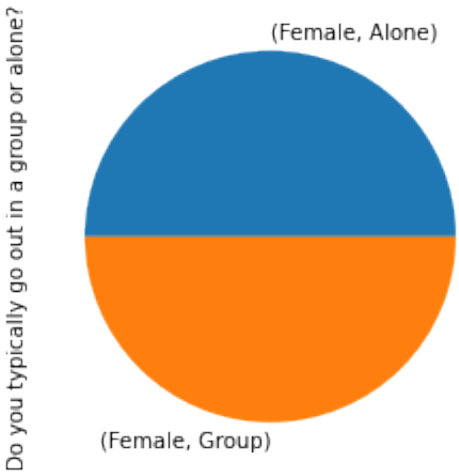
Out[8]:
```
<AxesSubplot:xlabel='What is your gender?'>
```



In [9]:
```
df4 = df[(df["What is your gender?"]=='Male')]
MalePie = df4.groupby("What is your gender?")["Do you typically go out in a g
```



In [10]:
```
df5 = df[(df["What is your gender?"]=='Female')]
FemalePie = df5.groupby("What is your gender?")["Do you typically go out in a
```



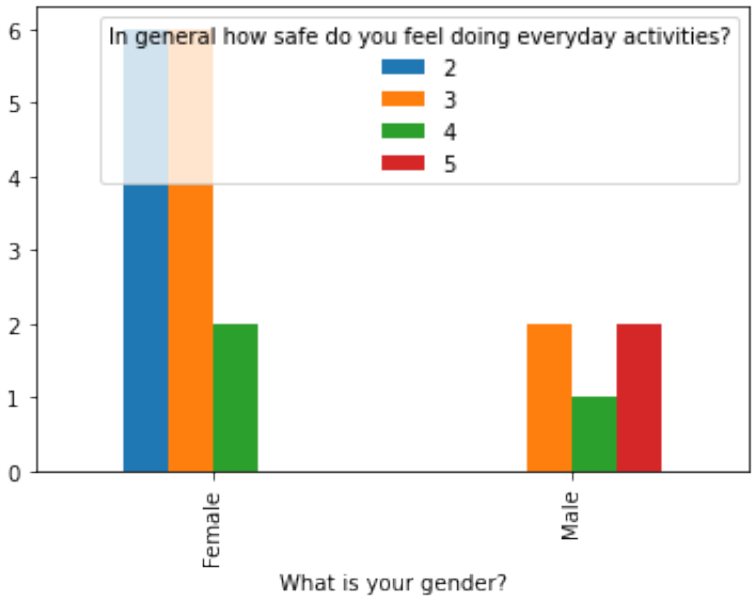
In [11]:
```
safety_Corr = pd.crosstab(df["What is your gender?"], df["In general how safe
safety_Corr
```

Out[11]:

In general how safe do you feel doing everyday activities?	2	3	4	5
What is your gender?				
Female	6	6	2	0
Male	0	2	1	2

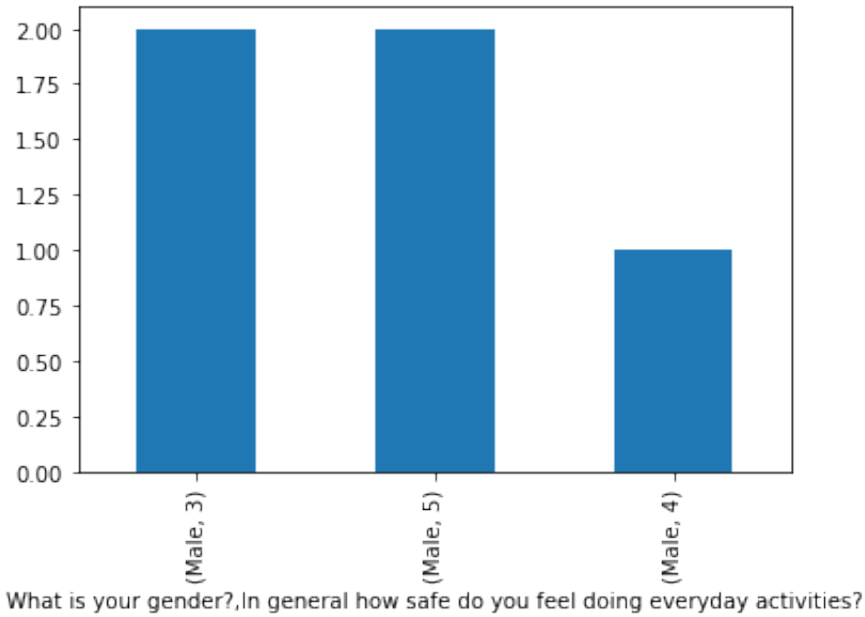
In [12]:
```
safety_Corr.plot.bar()
```

Out[12]:
```
<AxesSubplot:xlabel='What is your gender?'>
```



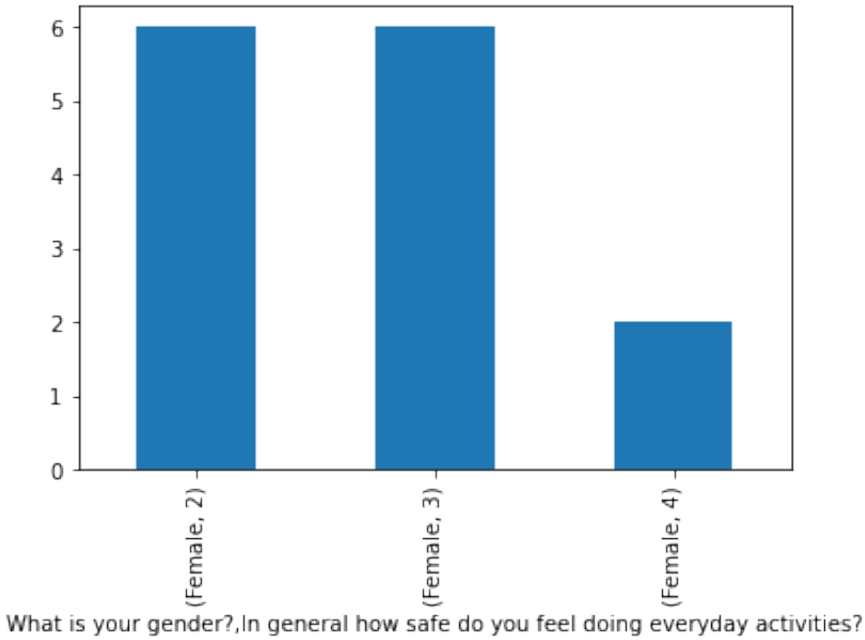
In [14]:
```
df2 = df[(df["What is your gender?"]=='Male')]
MaleGender = df2.groupby("What is your gender?")["In general how safe do you
MaleGender
```

Out[14]:
```
<AxesSubplot:xlabel='What is your gender?,In general how safe do you feel doin
g everyday activities?'>
```



In [15]:
```
df3 = df[(df["What is your gender?"]=='Female')]
FemaleGender = df3.groupby("What is your gender?")["In general how safe do yo
FemaleGender
```

Out[15]:
```
<AxesSubplot:xlabel='What is your gender?,In general how safe do you feel doin
g everyday activities?'>
```



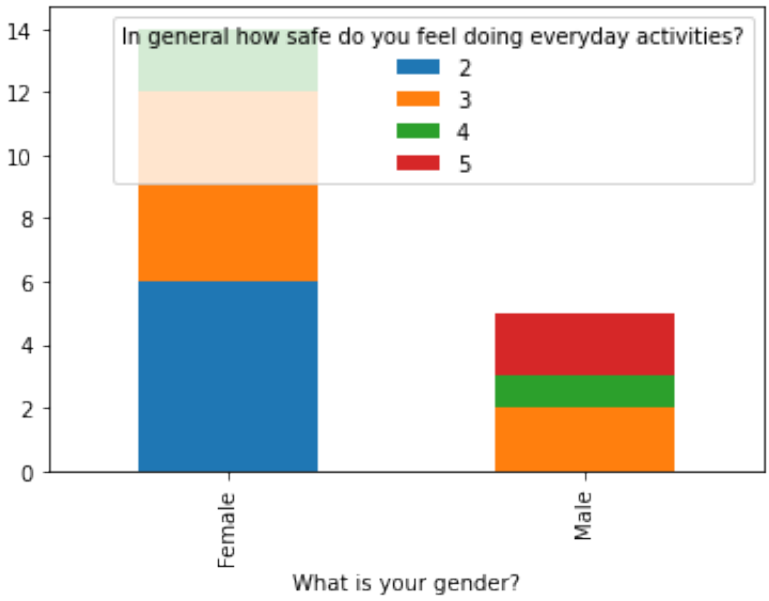
In [16]:
```
safetyscross = pd.crosstab(df["What is your gender?"], df["In general how saf
            normalize=True, margins=True)
safetyscross
```

Out[16]:

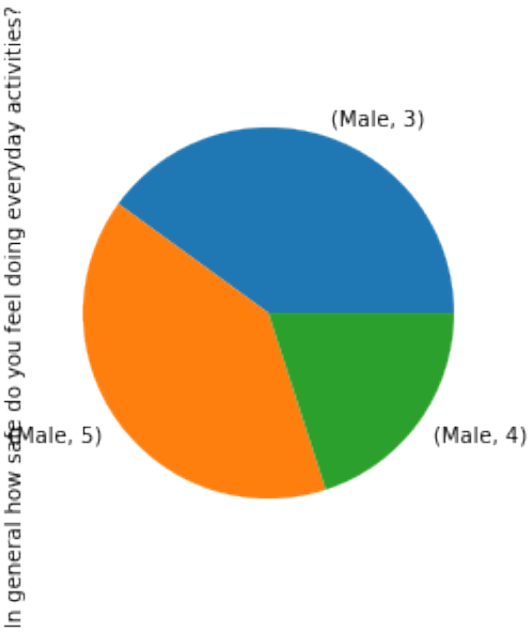
In general how safe do you feel doing everyday activities?	2	3	4	5	All
What is your gender?					
Female	0.315789	0.315789	0.105263	0.000000	0.736842
Male	0.000000	0.105263	0.052632	0.105263	0.263158
All	0.315789	0.421053	0.157895	0.105263	1.000000

In [43]:
```
safety_Corr.plot.bar(stacked=True)
```

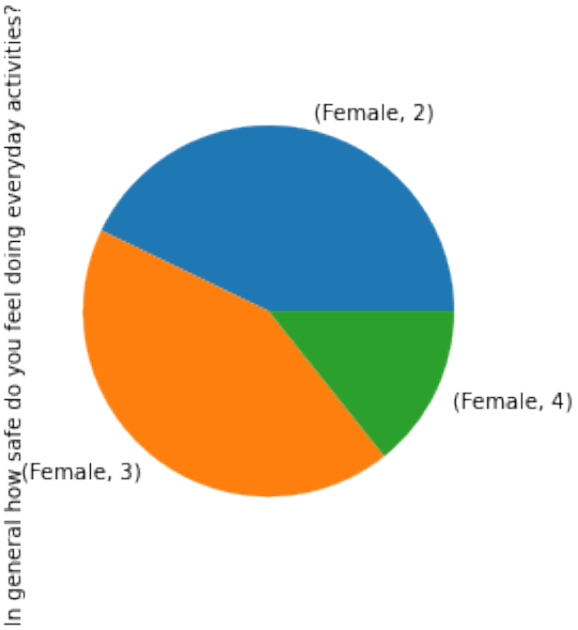
Out[43]: <AxesSubplot:xlabel='What is your gender?'>



In [17]:
```
df4 = df[(df["What is your gender?"]=='Male')]
MaleSafety = df4.groupby("What is your gender?")["In general how safe do you
```



In [18]:
```
df5 = df[(df["What is your gender?"]=='Female')]
FemaleSafety = df5.groupby("What is your gender?")["In general how safe do yo
```



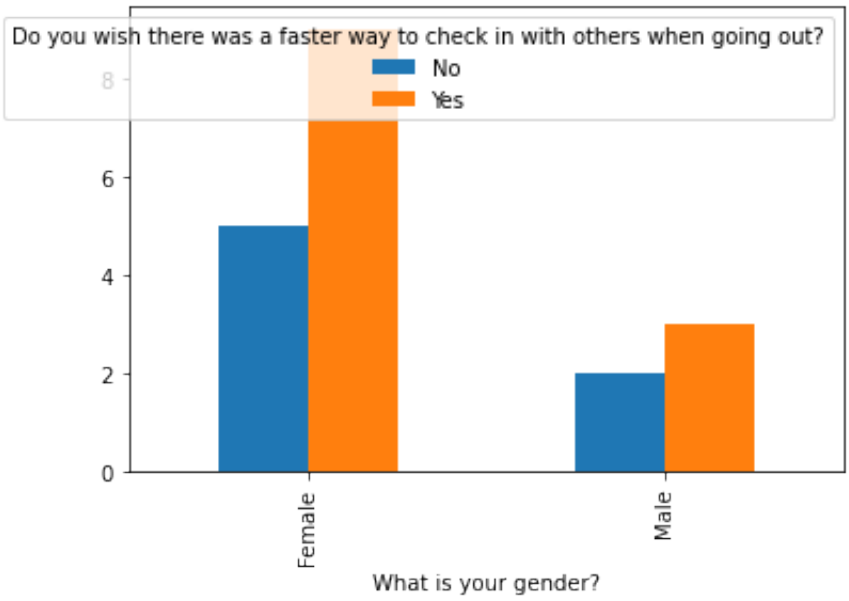
In [19]:
```
faster_Corr = pd.crosstab(df["What is your gender?"], df["Do you wish there w
faster_Corr
```

Out[19]:

Do you wish there was a faster way to check in with others when going out?	No	Yes
What is your gender?		
Female	5	9
Male	2	3

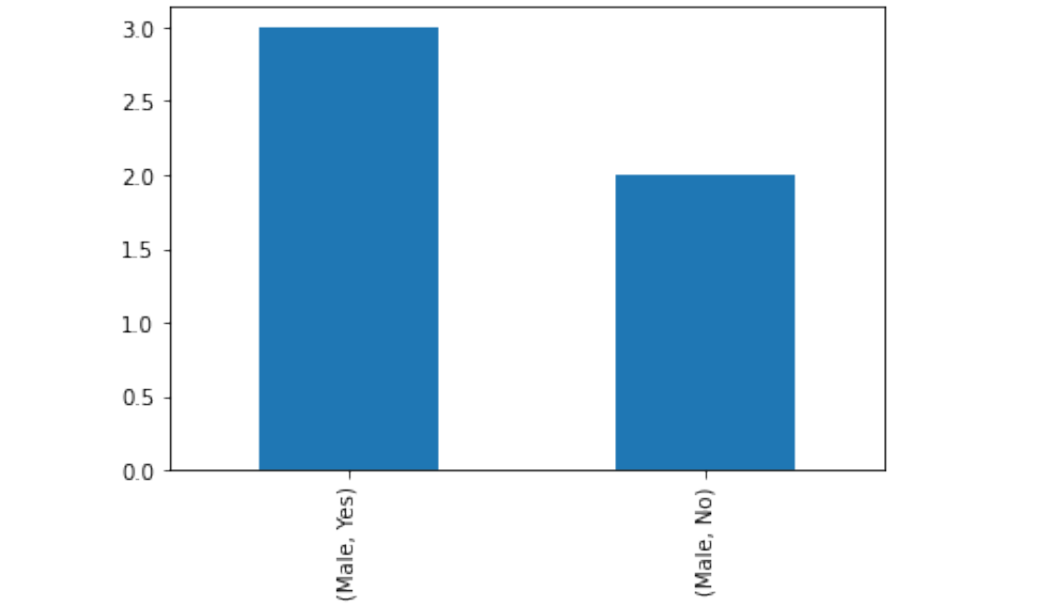
In [20]:
```
faster_Corr.plot.bar()
```

Out[20]: <AxesSubplot:xlabel='What is your gender?'>



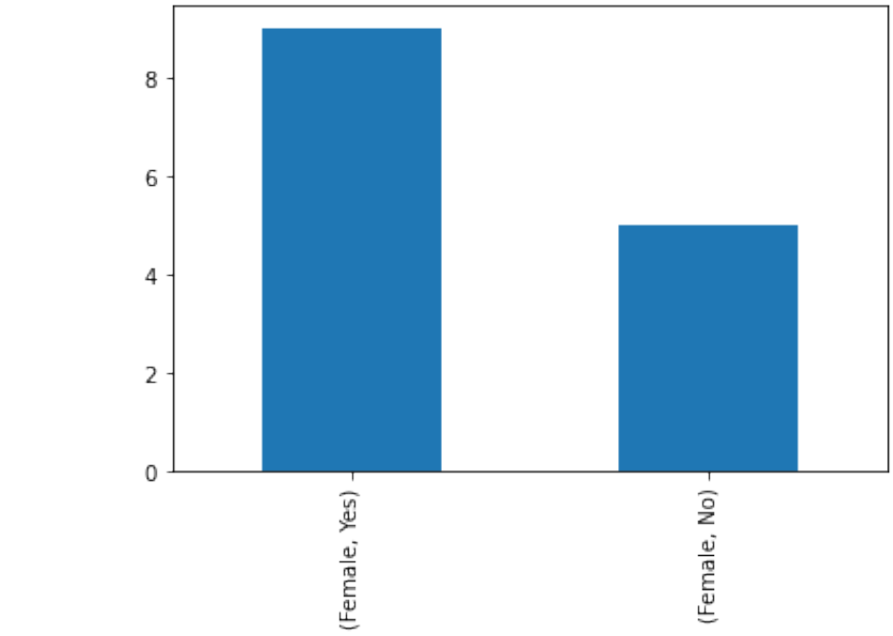
In [21]:
```
df2 = df[(df["What is your gender?"]=='Male')]
ManFaster = df2.groupby("What is your gender?")["Do you wish there was a fast
ManFaster
```

Out[21]: <AxesSubplot:xlabel='What is your gender?,Do you wish there was a faster way t
o check in with others when going out?'>



In [44]:
```
df3 = df[(df["What is your gender?"]=='Female')]
WomanFaster = df3.groupby("What is your gender?")["Do you wish there was a fa
WomanFaster
```

Out[44]:
```
<AxesSubplot:xlabel='What is your gender?,Do you wish there was a faster way t
o check in with others when going out?'>
```



What is your gender?,Do you wish there was a faster way to check in with others when going out?

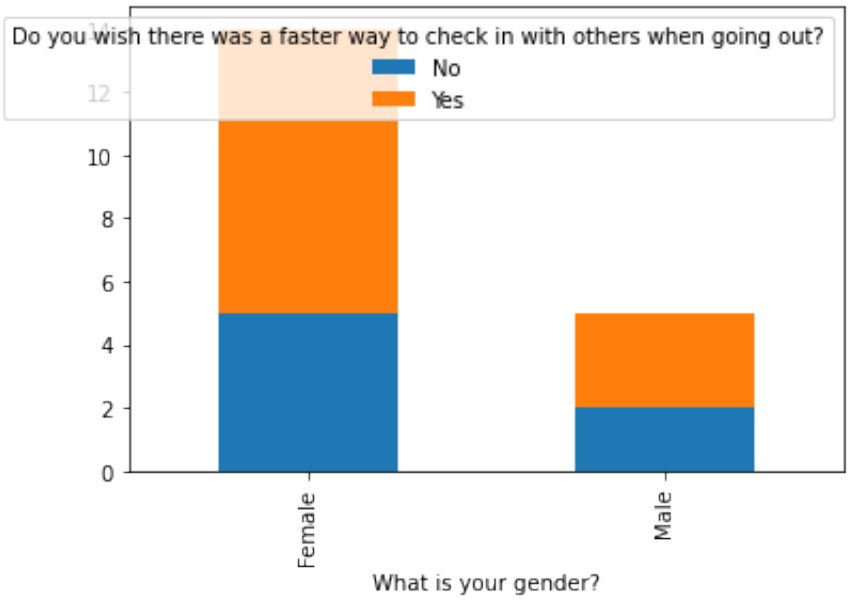
In [23]:
```
fasterscross = pd.crosstab(df["What is your gender?"], df["Do you wish there 
            normalize=True, margins=True)
fasterscross
```

Out[23]:

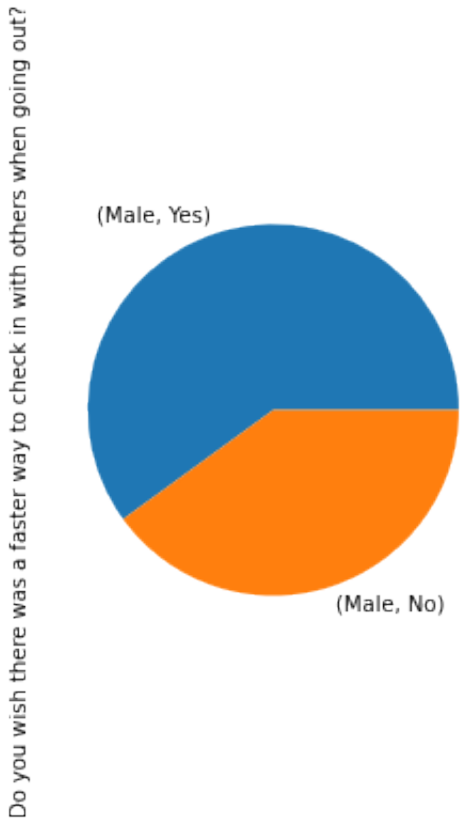
Do you wish there was a faster way to check in with others when going out?	No	Yes	All
What is your gender?			
Female	0.263158	0.473684	0.736842
Male	0.105263	0.157895	0.263158
All	0.368421	0.631579	1.000000

In [24]:
```
faster_Corr.plot.bar(stacked=True)
```

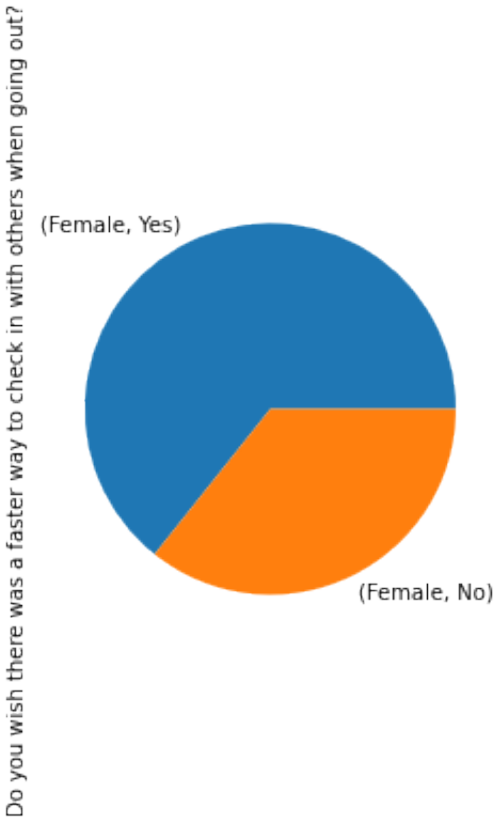
Out[24]: <AxesSubplot:xlabel='What is your gender?'>



In [25]:
```
df4 = df[(df["What is your gender?"]=='Male')]
MaleFast = df4.groupby("What is your gender?")["Do you wish there was a faste
```



In [26]:
```
df5 = df[(df["What is your gender?"]=='Female')]
FemaleFast = df5.groupby("What is your gender?")["Do you wish there was a fas
```



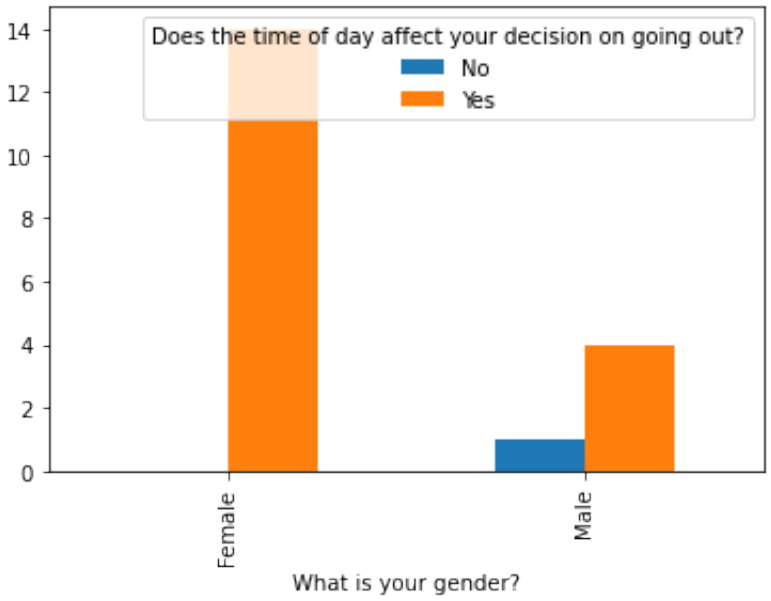
In [27]:
```
time_Corr = pd.crosstab(df["What is your gender?"], df["Does the time of day
time_Corr
```

Out[27]:

Does the time of day affect your decision on going out?	No	Yes
What is your gender?		
Female	0	14
Male	1	4

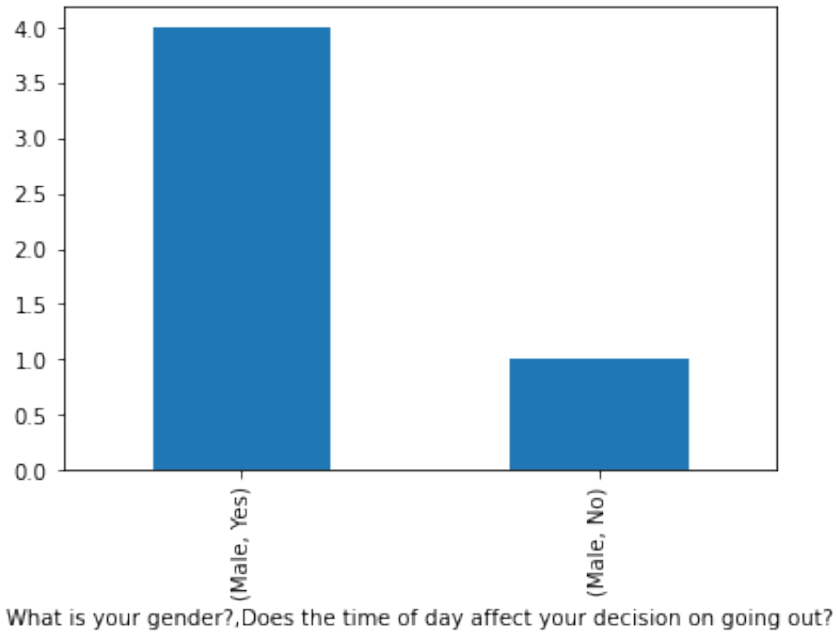
In [28]:
```
time_Corr.plot.bar()
```

Out[28]:
```
<AxesSubplot:xlabel='What is your gender?'>
```



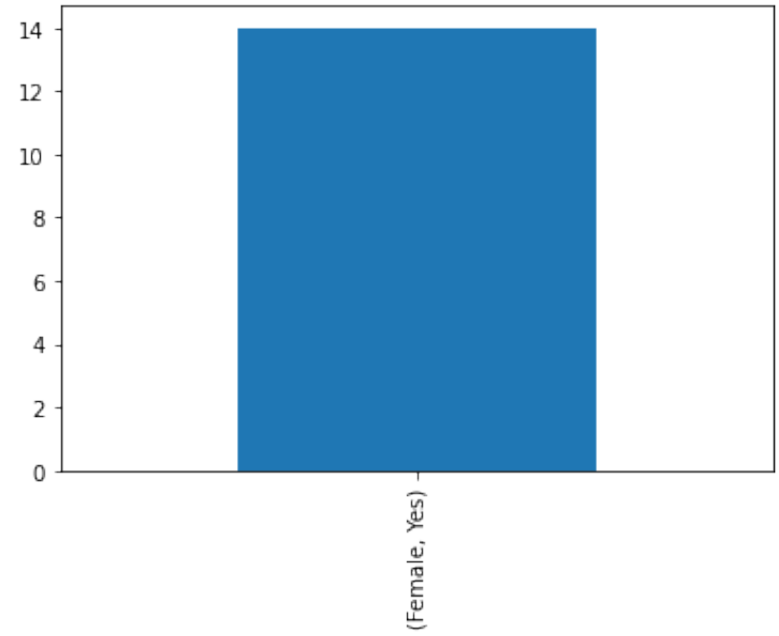
In [29]:
```
df2 = df[(df["What is your gender?"]=='Male')]
ManTime = df2.groupby("What is your gender?")["Does the time of day affect yo
ManTime
```

Out[29]:
```
<AxesSubplot:xlabel='What is your gender?,Does the time of day affect your dec
ision on going out?'>
```



In [30]:
```
df3 = df[(df["What is your gender?"]=='Female')]
WomanTime = df3.groupby("What is your gender?")["Does the time of day affect
WomanTime
```

Out[30]:
```
<AxesSubplot:xlabel='What is your gender?,Does the time of day affect your dec
ision on going out?'>
```



What is your gender?,Does the time of day affect your decision on going out?

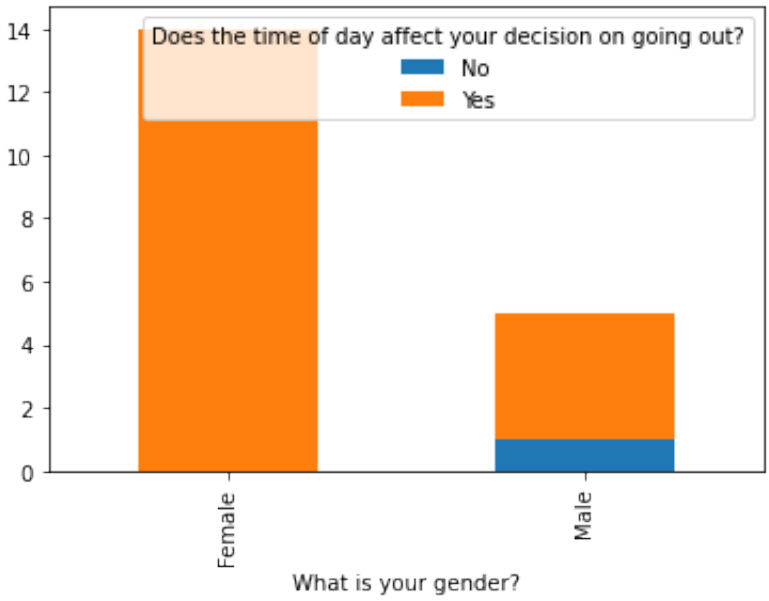
In [31]:
```
timecross = pd.crosstab(df["What is your gender?"], df["Does the time of day
            normalize=True, margins=True)
timecross
```

Out[31]:

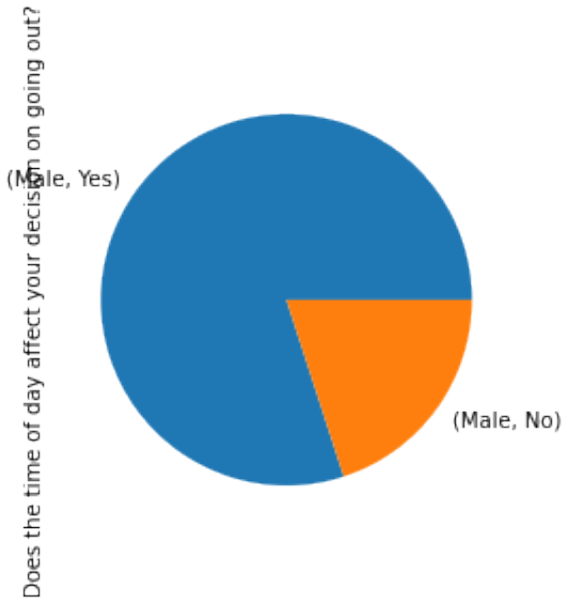
Does the time of day affect your decision on going out?	No	Yes	All
What is your gender?			
Female	0.000000	0.736842	0.736842
Male	0.052632	0.210526	0.263158
All	0.052632	0.947368	1.000000

In [32]:
```
time_Corr.plot.bar(stacked=True)
```

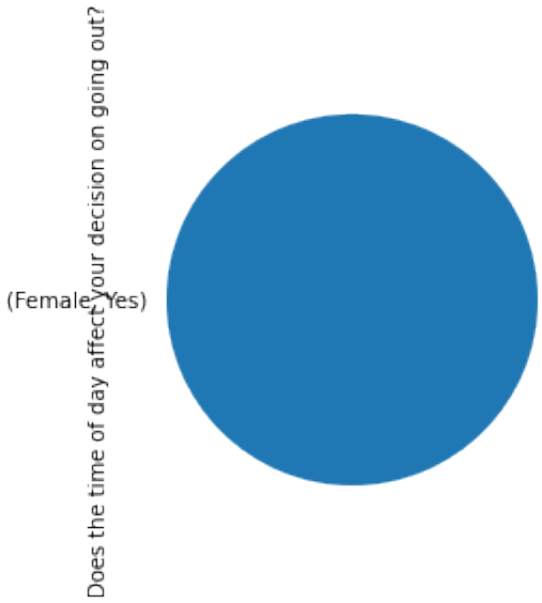
Out[32]: <AxesSubplot:xlabel='What is your gender?'>



In [45]:
```
df4 = df[(df["What is your gender?"]=='Male')]
MaleTime = df4.groupby("What is your gender?")["Does the time of day affect y
```



In [46]:
```
df5 = df[(df["What is your gender?"]=='Female')]
FemaleTime = df5.groupby("What is your gender?")["Does the time of day affect
```



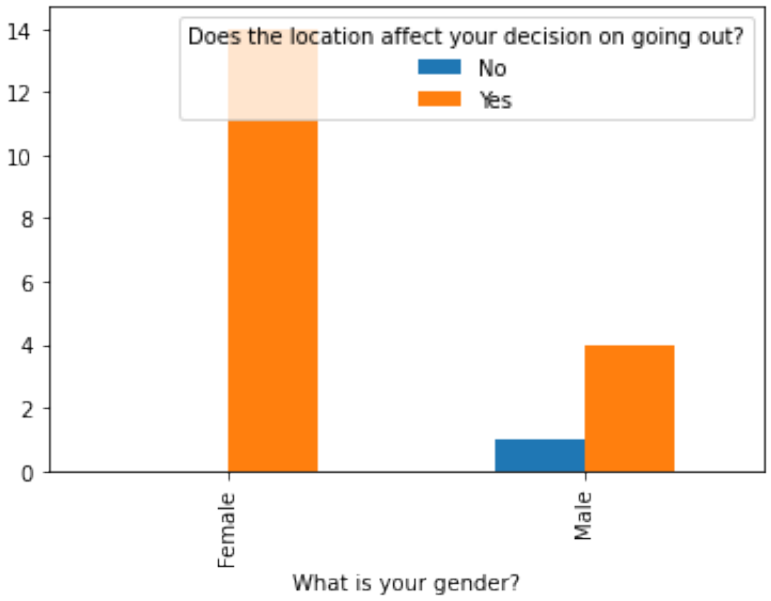
In [33]:
```
area_Corr = pd.crosstab(df["What is your gender?"], df["Does the location aff
area_Corr
```

Out[33]:

Does the location affect your decision on going out?	No	Yes
What is your gender?		
Female	0	14
Male	1	4

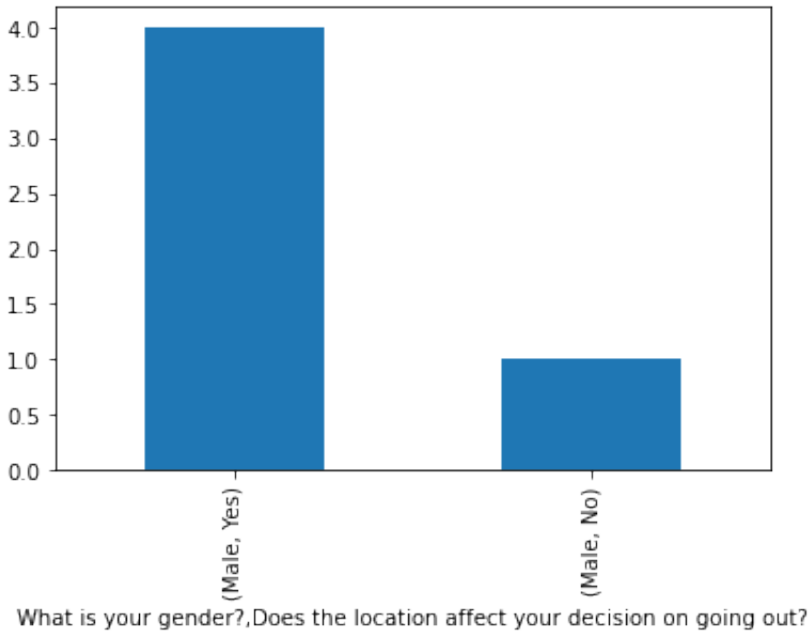
In [34]:
```
area_Corr.plot.bar()
```

Out[34]: <AxesSubplot:xlabel='What is your gender?'>



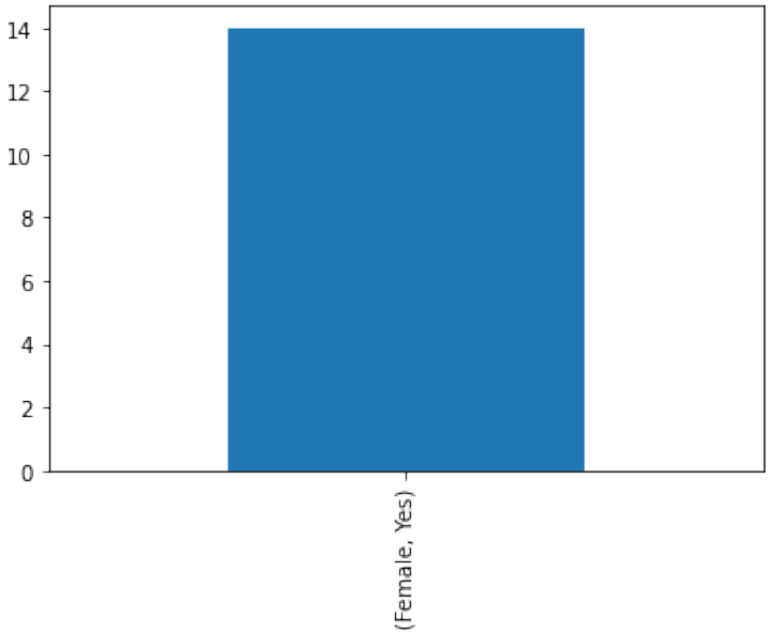
In [35]:
```
df2 = df[(df["What is your gender?"]=='Male')]
ManArea = df2.groupby("What is your gender?")["Does the location affect your
ManArea
```

Out[35]: <AxesSubplot:xlabel='What is your gender?,Does the location affect your decisi
on on going out?'>



In [36]:
```
df3 = df[(df["What is your gender?"]=='Female')]
WomanArea = df3.groupby("What is your gender?")["Does the location affect you
WomanArea
```

Out[36]:
```
<AxesSubplot:xlabel='What is your gender?,Does the location affect your decisi
on on going out?'>
```



What is your gender?,Does the location affect your decision on going out?

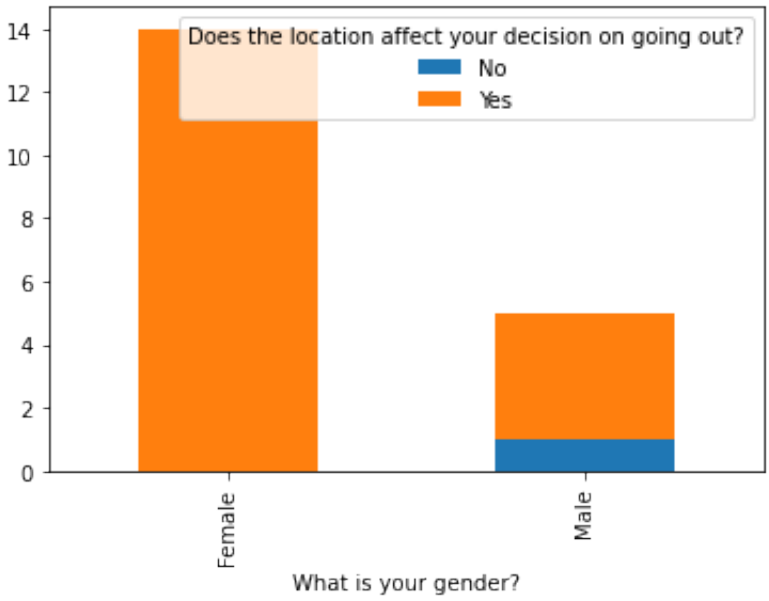
In [37]:
```
areacross = pd.crosstab(df["What is your gender?"], df["Does the location aff
            normalize=True, margins=True)
areacross
```

Out[37]:

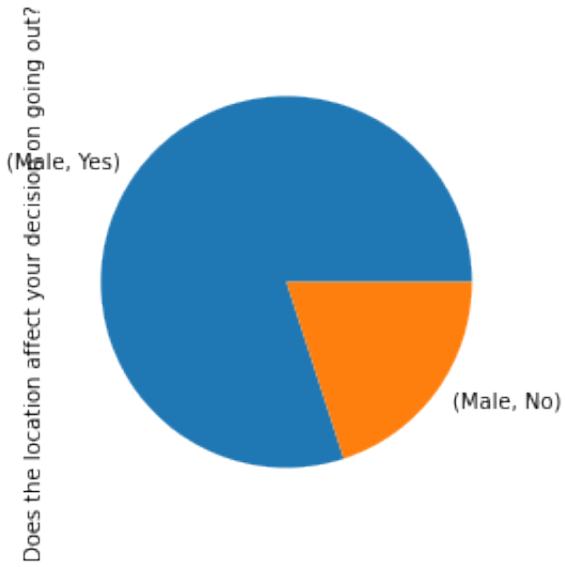
Does the location affect your decision on going out?	No	Yes	All
What is your gender?			
Female	0.000000	0.736842	0.736842
Male	0.052632	0.210526	0.263158
All	0.052632	0.947368	1.000000

In [38]:
```
area_Corr.plot.bar(stacked=True)
```

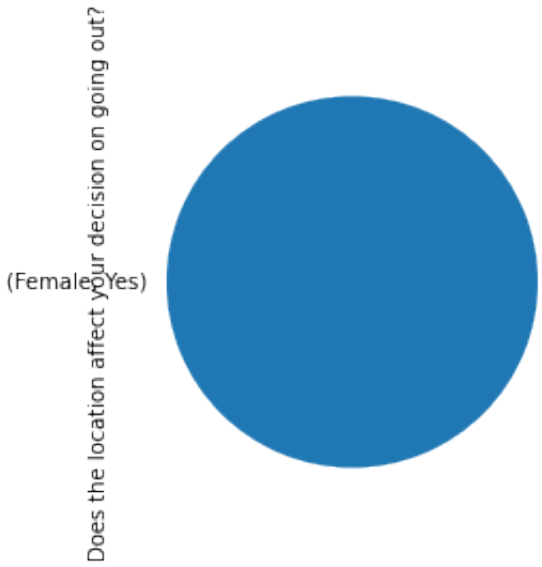
Out[38]: <AxesSubplot:xlabel='What is your gender?'>



In [47]:
```
df4 = df[(df["What is your gender?"]=='Male')]
MaleArea = df4.groupby("What is your gender?")["Does the location affect your
```



In [48]:
```
df5 = df[(df["What is your gender?"]=='Female')]
FemaleArea = df5.groupby("What is your gender?")["Does the location affect yo
```



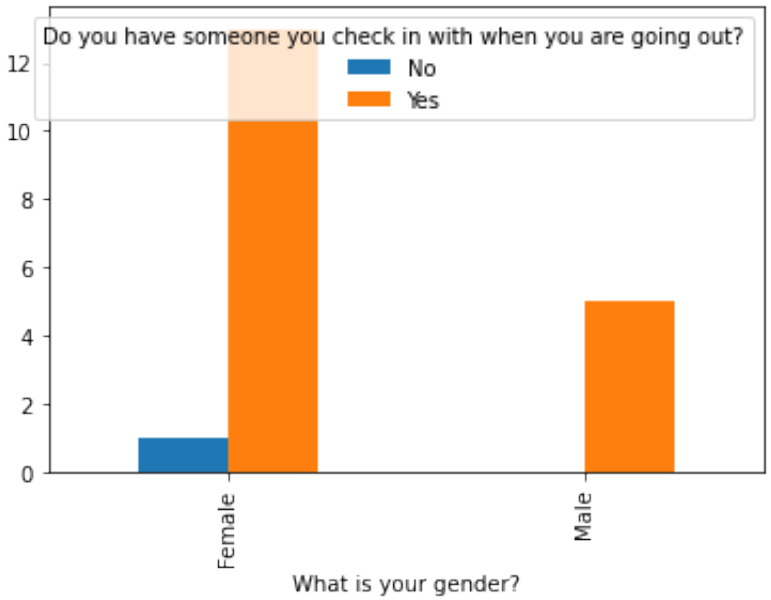
In [39]:
```
help_Corr = pd.crosstab(df["What is your gender?"], df["Do you have someone y
help_Corr
```

Out[39]:

Do you have someone you check in with when you are going out?	No	Yes
What is your gender?		
Female	1	13
Male	0	5

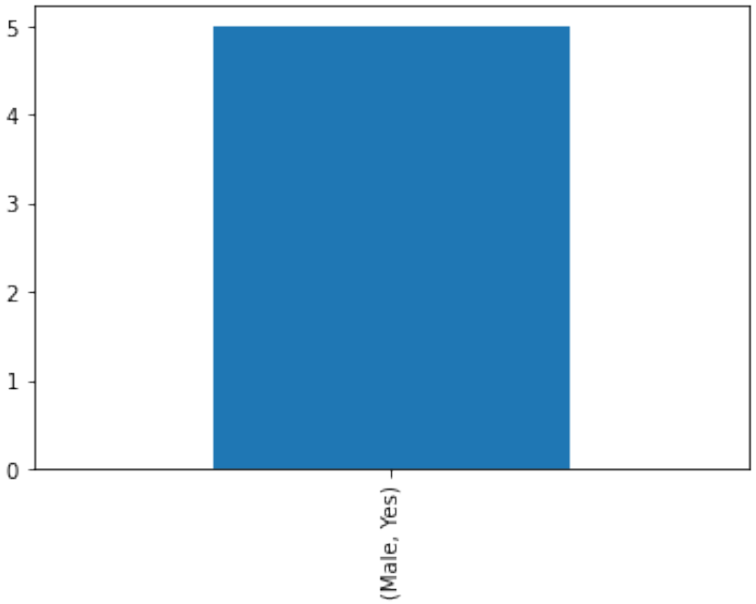
In [40]:
```
help_Corr.plot.bar()
```

Out[40]:
```
<AxesSubplot:xlabel='What is your gender?'>
```



In [41]:
```
df2 = df[(df["What is your gender?"]=='Male')]
ManHelp = df2.groupby("What is your gender?")["Do you have someone you check
ManHelp
```

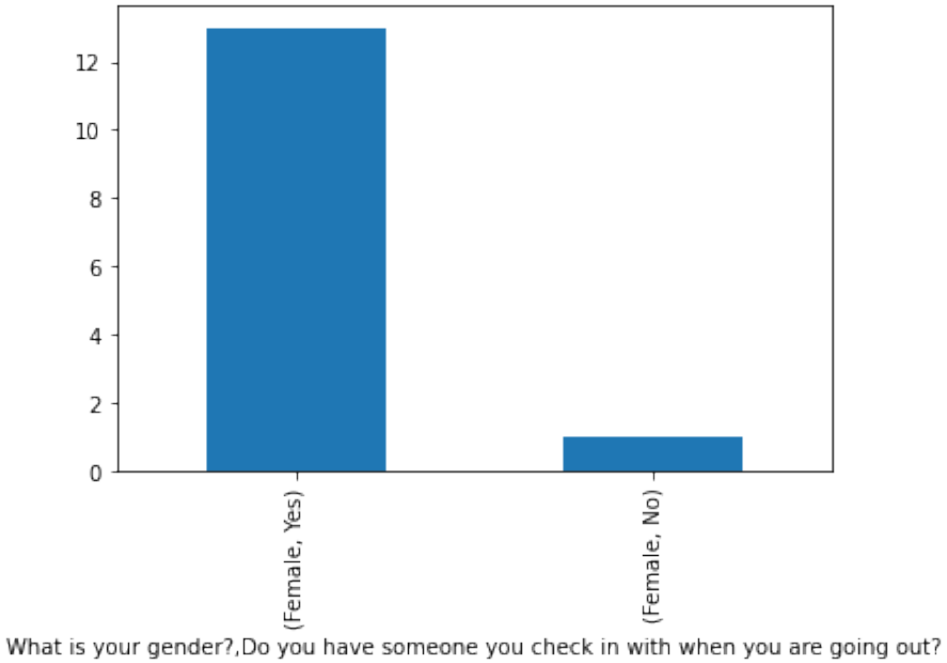
Out[41]:
```
<AxesSubplot:xlabel='What is your gender?,Do you have someone you check in wit
h when you are going out?'>
```



What is your gender?,Do you have someone you check in with when you are going out?

In [42]:
```
df3 = df[(df["What is your gender?"]=='Female')]
WomanHelp = df3.groupby("What is your gender?")["Do you have someone you chec
WomanHelp
```

Out[42]:
```
<AxesSubplot:xlabel='What is your gender?,Do you have someone you check in wit
h when you are going out?'>
```



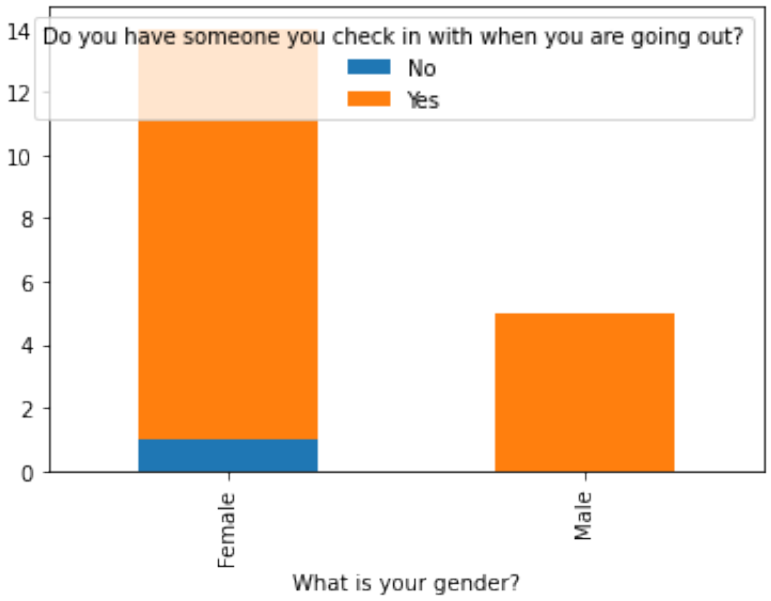
In [49]:
```
Helpcross = pd.crosstab(df["What is your gender?"], df["Do you have someone y
            normalize=True, margins=True)
Helpcross
```

Out[49]:

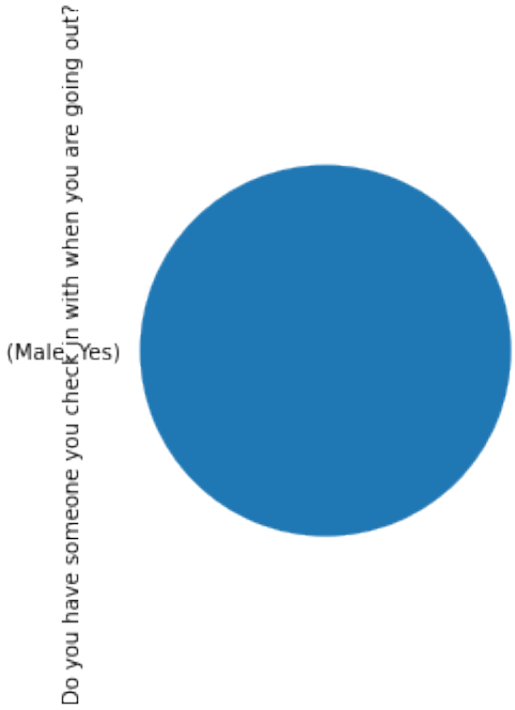
Do you have someone you check in with when you are going out?	No	Yes	All
What is your gender?			
Female	0.052632	0.684211	0.736842
Male	0.000000	0.263158	0.263158
All	0.052632	0.947368	1.000000

In [50]:
```
help_Corr.plot.bar(stacked=True)
```

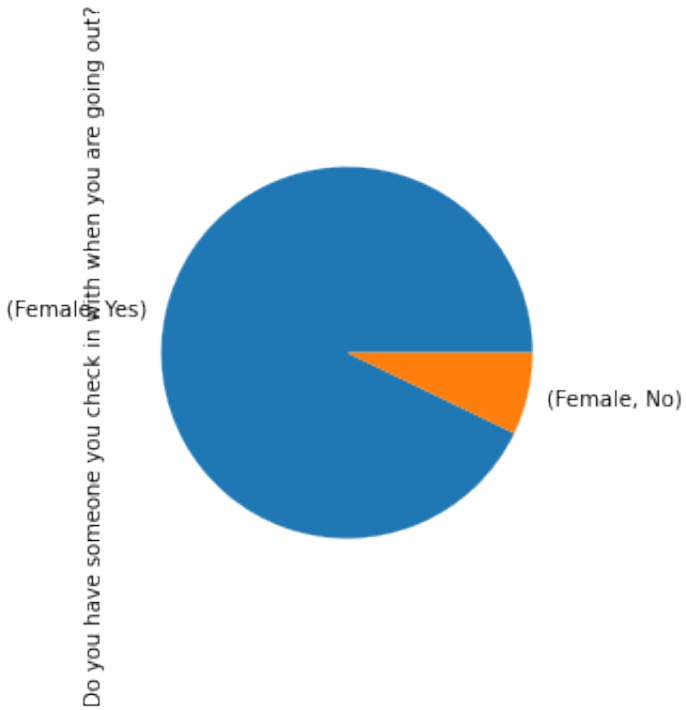
Out[50]: <AxesSubplot:xlabel='What is your gender?'>



In [51]:
```
df4 = df[(df["What is your gender?"]=='Male')]
MaleHelp = df4.groupby("What is your gender?")["Do you have someone you check
```



In [52]:
```
df5 = df[(df["What is your gender?"]=='Female')]
FemaleArea = df5.groupby("What is your gender?")["Do you have someone you che
```


Do you have someone you check in with when you are going out?
(Female, Yes)
(Female, No)